KNAUF INSULATION
Technical Solutions

www.ki-ts.com
www.knaufinsulation-ts.com

VERSION EUROPEAN MARKETS
Valid from 01. January 2024

PRODUCT CATALOGUE TECHNICAL INSULATION

THERMO-TEK

FIRE-TEK

POWER-TEK

SEA-TEK

challenge.
create.
care.

At Knauf Insulation we are commited to sustainability

CONTENT

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KNAUF INSULATION TECHNICAL SOLUTIONS

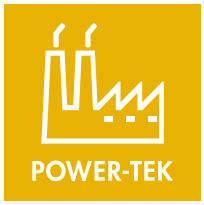
As a well-known insulation specialist in the process industry, HVAC and shipbuilding, Knauf Insulation has more than 40 years experience in insulation industry. We represent one of the fastest growing and most respected names in insulation worldwide.

As part of the Knauf Insulation Group, we specialize in the field of technical insulation and produce insulation materials designed for HVAC, the process industry and shipbuilding to provide for exceptional energy savings.

With our natural binding agent ECOSE® Technology without the addition of formaldehyde, we reduce energy consumption during the production of our products and improve the energy efficiency of the final product. As a result, within the scope of our Power-teK®, Thermo-teK, Fire-teK® and Sea-teK® segments, we offer the perfect product for every application in technical insulation and provide the best possible combination of energy efficiency, fire protection, sound absorption and sustainability.

Thermo-teK
Sustainable and safe insulation materials for HVAC.

Fire-teK®
Optimal passive fire protection.



Power-teK®
Economical and efficient insulation for the process industry.

Sea-teK®
Marine certified insulation materials for shipbuilding.

OVERVIEW OF CERTIFICATES AND SEALS OF QUALITY

These apply for all our standard products:

Recycling:

These only apply for certain products:

NOTES
To obtain a Declaration of Performance (DoP) for a product, simply copy the URL which is stated in the product documents and enter it in your web browser. This gives you direct access to our online database for DoPs under **www.dopki.com**

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KNAUF INSULATION TECHNICAL SOLUTIONS SALES AND TECHNICAL SUPPORT TEAM

Competent international experts, with long-term experience in the insulation industry, are doing their best to keep customers informed and satisfied with our products and solutions.

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(alphabetical order)

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APPLICATIONS

HEATING, VENTILATION AND AIR-CONDITIONING

THERMO-TEK

	Thermal insulation	Thermal insulation	Max. service Temperature	Reaction to fire	Density (ca.)	Facing	Pipe insulation – heating, water supply	Rectangular air ducts – outside insulation	Rectangular air ducts-inside insulation	Circular air ducts – outside insulation	Technical & acoustic rooms	Pipes/ducts for air conditioning, cold water pipes	Page
	λ_{10}	λ_{40}	St (+)	-	ρ	-							
	W/(m·K)	W/(m·K)	°C		kg/m³	–							
Pipe Sections													
Thermo-teK PS Pro ALU	0,033	0,035	500*	$A2_L$-s1, d0 $D_0 \leq 300$ mm A2-s1, d0 $D_0 > 300$ mm	100-120	aluminium foil	■						15
Thermo-teK PS Eco ALU	0,033	0,037	450*	$A2_L$-s1, d0 $D_0 \leq 300$ mm A2-s1, d0 $D_0 > 300$ mm	85-100	aluminium foil	■				■		18
Thermo-teK PS Eco	0,033	0,037	450	$A1_L$	85-100	–	■						21
Thermo-teK PH/PH INS	-	-	250	-	150	aluminium foil	■						24
Lamella Mats													
Thermo-teK LM Air ALU	0,036	0,042	250*	A2 - s1, d0	28	aluminium foil	■	■		■	■		25
Thermo-teK LM Eco ALU	0,037	0,042	250*	A1 (A2-s1, d0 (thickness: 20 and 25 mm))	35	aluminium foil	■	■		■	■		26
Thermo-teK LM Pro ALU	–	0,042	250*	A1 (A2-s1, d0 (thickness: 20 and 25 mm))	40	aluminium foil	■	■		■	■		27
Felt Mats													
Thermo-teK FM 040-060	0,037 / 0,035 / 0,035	-	-	A1	40/50/60	–		■		■	■		28
Thermo-teK FM 040-060 ALU	0,037 / 0,035 / 0,035	-	-	A1	40/50/60	aluminium foil		■		■	■		29
Rolls													
Thermo-teK RL Eco ALL	0,034	0,040	60*	A2-s1, d0	25	aluminium foil	■	■		■	■		30
Thermo-teK RL Eco ALP	0,034	0,040	60*	A2-s1, d0	25	aluminium foil	■	■		■	■		31
Thermo-teK RL Eco ALU	0,033	0,040	150*	A1	25	aluminium foil	■	■		■	■		32
Thermo-teK RL Esy ALP	0,039	0,044	150*	A2-s1, d0	-	aluminium foil	■	■		■	■		33
Boards													
Thermo-teK BD 035-100	0,034-0,038	0,038-0,044	[1]250	A1	35 - 100	-		■			■		34
Thermo-teK BD 035-100 ALU	0,034-0,038	0,038-0,044	[1]250*	A1	35 - 100	aluminium foil		■			■		35
Thermo-teK BD 035-100 WBS	0,034-0,038	0,038-0,044	[1]250	A1	35 - 100	black glass woven		■			■		36
Thermo-teK BD 035-100 VBS	0,034-0,038	0,038-0,044	[1]250	A1	35 - 100	black glass veil		■	■		■		37
Thermo-teK BD 035-100 VWS	0,034-0,038	0,038-0,044	[1]250	A1	35 - 100	white glass veil		■	■		■		38
Thermo-teK PS Cld SYSTEM													
Thermo-teK PS Cld ALS	0,033	0,035	250	$A2_L$-s1, d0 $D_0 \leq 300$ mm A2-s1, d0 $D_0 > 300$ mm	100-120	aluminium foil						■	46
Thermo-teK PH/PH INS	-	-	250	-	150	aluminium foil						■	47
Thermo-teK LM Cld ALS	-	-	250	A1	40	aluminium foil						■	48
Thermo-teK Tape Cld	-	-	-	-	-	-						■	49
Thermo-tek Seal Cld	-	-	-	-	-	-						■	49

* aluminium side ≤ 80°C
** glass veil / glass vowen side ≤ 150 °C
[1] Note : Valid only for Thermo-teK BD 035-080

SOUND INSULATION IN HEATING, VENTILATION AND AIR-CONDITIONING

THERMO-TEK

	Thermal insulation λ_{10} W/(m·K)	Thermal insulation λ_{40} W/(m·K)	Max. service Temperature St (+) °C	Reaction to fire -	Density (ca.) ρ kg/m³	Facing - –	Pipe insulation – heating, water supply	Rectangular air ducts – outside insulation	Rectangular air ducts-inside insulation	Circular air ducts – outside insulation	Technical & acoustic rooms	Page
Sound Absorbent Boards												
Sound-teK BD 804-808 WBD	0,035	–	150	A1	40–80	black glass woven (2-sided)		■	■		■	39
Sound-teK BD 804-808 VWD	0,035	–	150	A1	40–80	white glass veil (2-sided)		■			■	40
Sound-teK BD 804-808 VBD	0,035	–	150	A1	40–80	black glass veil (2-sided)		■	■		■	41
Sound-teK BD 804-808 WBS	0,035	–	150	A1	40–80	black glass woven (1-sided)		■	■		■	42
Sound-teK BD 804-808 VBS	0,035	–	150	A1	40–80	black glass veil (1-sided)		■	■		■	43
Sound Absorbent Felt Mats												
Sound-teK FM 140 ALU	–	–	–	A1	140	aluminium foil				■	■	44

INDUSTRIAL INSULATION

POWER-TEK

	Thermal insulation λ_{50} W/(m·K)	Max. service Temperature St (+) °C	Reaction to fire - –	Density (ca.) ρ kg/m3	Facing - –	Pipe insulation	Pipe insulation elbows	Boilers	Tank walls & heat storage	Tank roofs	Furnaces & other equipment	Cryogenic applications	Irregular shapes	Page
Wired Mats														
Power-teK® WM 640/660/680 GGN	0,040	640/660/680	A1	80/100/120	–	■	■	■	■		■			51
Power-teK® WM 640/660/680 GSN	0,040	640/660/680	A1	80/100/120	–	■	■	■	■		■			52
Power-teK® WM 640/660/680 SSN	0,040	640/660/680	A1	80/100/120	–	■	■	■	■		■			53
Power-teK® WM 640/660/680 GGA	0,040	640/660/680*	A1	80/100/120	aluminium foil	■	■	■	■		■			54
Power-teK® WM 640/660/680 GSA	0,040	640/660/680*	A1	80/100/120	aluminium foil	■	■	■	■		■			55
Power-teK® WM 640/660/680 SSA	0,040	640/660/680*	A1	80/100/120	aluminium foil	■	■	■	■		■			56
Power-teK® WM 640/660 GGV	0,040	640/660**	A1	80/100	white glass veil	■	■	■	■		■			57
Power-teK® PB SYS WM1	0,040	640*		–	–	■								58
Pipe Sections														
Power-teK® PS 680	0,039	680	A1L	110–140	–	■	■							59
Power-teK® PB 640/680 ALU	0,039 / 0,042	640 / 680*	A1	80/120	aluminium foil	■								62
Power-teK® PS 700	0,039	700	A1L	140	–	■	■							65
Power-teK® PC 600	0,41	600	A1	80	–	■								68

* aluminium side ≤ 80°C
** glass veil / glass vowen side ≤ 150 °C

This selection of applications only provides a rough overview.
Please check whether the materials are suitable for the actual application.

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APPLICATIONS

INDUSTRIAL INSULATION

POWER-TEK

	Thermal insulation	Max. service Temperature	Reaction to fire	Density (ca.)	Facing	Pipe insulation	Pipe insulation elbows	Boilers	Tank walls & heat storage	Tank roofs	Furnaces & other equipment	Cryogenic applications	Irregular shapes	Page
	λ_{50}	St (+)	-	ρ	-									
	W/(m·K)	°C	–	kg/m3	–									
Lamella Mats														
Power-teK® LM 450 ALU	0,044	450*	A1(A2-s1, d0 for 20 and 25 mm)	40	aluminium foil									69
Power-teK® LM 550 ALU	0,043	550*	A1	60	aluminium foil									70
Power-teK® LM 640 ALU	0,044	640*	A1	80	aluminium foil									72
Power-teK® LM 700 ALU	0,044	700*	A1	95	aluminium foil									73
Mats														
Power-teK® CM 450 ALU	0,044	450*	A1	50	aluminium foil									74
Power-teK® CM 620 ALU	0,043	620*	A1	70	aluminium foil									75
Felt Mats														
Power-teK® FM 620/640/660	0,040	620 / 640 / 660	A1	70 / 80 / 100	–									76
Power-teK® FM 620/640/660 ALU	0,040	620 / 640 / 660*	A1	70 / 80 / 100	aluminium foil									77
Boards														
Power-teK® BD 450-700	0,039-0,041	450-700	A1	50-150	–									79
Power-teK® BD 450-700 / ALU	0,039-0,041	450-700*	A1	60	aluminium foil									80
Power-teK® BD 772/775/776/778	0,042 ***	450	A1	100/ 150/170	–									83
Roll														
Power-teK® RL 220	0,042	220	A1	22	–									84
Loose Wool														
Power-teK® LW STD	0,041	660	A1	–	–									86
Power-teK® LW CRY	0,041	–	A1	–	–									87
Power-teK® LW 020	–	–	A1	–	–									88

* aluminium side ≤ 80°C
** glass veil / glass vowen side ≤ 150 °C
*** valid for BD 775 and 776; BD 772 at 10 °C 0,036 W/(mK) and BD 778 at 10 °C 0,040 W/(mK)

This selection of applications only provides a rough overview.
Please check whether the materials are suitable for the actual application.

FIRE PROTECTION

FIRE-TEK

	Thermal insulation	Fire resistamce	Density (ca.)	Facing	Pipe insulation – heating, water supply	Circular air ducts – outside insulation	Rectangular air ducts – outside insulation	Wall/ceiling penetrations	Irregular shapes	Page
	λ_{50}	-	ρ	-						
	W/ (m·K)	–	kg/m³	–						
Systems										
Fire-teK® DuctProtect 30 R SYSTEM	–	EI30 (ve ho i<->o) S	–	black aluminium foil			■	■		91
Fire-teK® DuctProtect 30-120 C SYSTEM	–	EI30 (ve ho i<->o) S with 40 mm or 60 mm, EI60 (ve ho i<->o) S with 80 mm, EI90 and EI120 (ve ho i<->o) with 100 mm	–	black aluminium foil		■		■		92
Pipe sections										
Thermo-teK PS Pro ALU	0,037	$A2_L$-s1, d0 $D_0 \leq 300$ mm A2-s1, d0 $D_0 > 300$ mm	100-120	aluminium foil	■			■		93
Boards										
Fire-teK® BD 907 ALB	0,038	EI30 (ve ho i<->o) **		black aluminium foil			■	■		94
Fire-teK® BD 908 ALU	0,040	EI30 (ve ho i<->o) S**	80	aluminium foil			■			95
Fire-teK® BD 912 ALU	0,040	EI60 (ve ho i<->o) S**	120	aluminium foil			■			95
Fire-teK® BD 917 ALU	–	–	165	aluminium foil			■			96
Fire-teK® BD 916	–	–	160	–				■		97
Fire-teK® BD 918	0,041	EI30 (ve ho i<->o) **		–				■		98
Wired Mats										
Fire-teK® WM 908 GGA	0,040	EI30 (ve ho i<->o) S with 60 mm ** EI60 (ve ho i<->o) S with 80 mm**	80	aluminium foil		■		■	■	99
Fire-teK® WM 908 GGB	0,040	EI30 (ve ho i<->o) S with 60 mm, EI60 (ve ho i<->o) S with 80 mm or EI90 (ve ho i<->o) or EI120 (ve ho i<->o) with 100 mm**	80	black aluminium foil		■				100
Fire-teK® WM 910 GGB	0,040	EI30 (ve ho i<->o) S with 40 mm**	100	black aluminium foil		■				100
Cord										
Fire-tek® CR STD	–	A2	100	–				■	■	101
Accessories										
Fire-teK® INT	–	E	–	–				■		102
Fire-teK® STICK	–	–	–	–				■		102

* aluminium side ≤ 80°C
** only in the Fire-tek® DuctProtect system

This selection of applications only provides a rough overview.
Please check whether the materials are suitable for the actual application.

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APPLICATIONS

MARINE SEA-TEK	Thermal insulation	Thermal insulation	Density (ca.)	Reaction to fire	Surface flammability	Bulkhead	Deck	Machinery, pipelines and air ducts	Corridors, cabins, wet rooms	Page
	λ_{10}	λ_{40}	ρ	-	-					
	W/mK	W/mK	kg/m³	-	-					
Boards										
Sea-teK® BD 035-090 ALU/VBS/VWS	0,034 – 0,038	0,037 – 0,044	35 – 90	Non-flammable	Low flame spread	■	■	■		105
Sea-teK® BD 100 ALU/VBS/VWS	0,035	0,038	100	Non-flammable	Low flame spread	■	■	■		105
Sea-teK® BD 110-200 ALU/VBS/VWS	0,035 – 0,039	0,038 – 0,043	110 – 200	Non-flammable	Low flame spread		■		■	105
Wired Mats										
Sea-teK® WM 070-100 GGN/GGA	0,034 – 0,036	0,038 – 0,039	70 – 100	Non-flammable	Low flame spread	■	■	■		106
Sea-teK® WM 120 GGN/GGA	0,034	0,038	120	Non-flammable	Low flame spread			■		106

This selection of applications only provides a rough overview.
Please check whether the materials are suitable for the actual application.

Clear vision with focus on our customers. Service and quality excellence with in future oriented actions based on sustainability.

FIRE PROTECTION

Regulations for the passive fire protection of buildings are intended to prevent the spread of fire, smoke and gases as much as possible in order to save lifes and property. We developed a set of systems and products to cover this important challenge, listed in the chapter Fire-teK , pages 84-97.

SOUND INSULATION

We are affected by noise throughout the day, and often this cannot be avoided. However, with the sound insulation products we provide, noise emissions will be reduced and the quality of life in living and work areas therefore considerably improved.

SUSTAINABILITY

It is our responsibility to protect and preserve nature and the environment. Because of this we use natural materials almost exclusively as the basis for our Mineral Wool products.
With our binder ECOSE® Technology without any added formaldehyde we also reduce energy consumption during manufacture and improve the energy balance of the finished product. Awarded the Eurofins Indoor Air Comfort Gold, our insulation materials ensure excellent quality of indoor air and are ideally suitable for sustainable use.

ENERGY EFFICIENCY

Extremly rising energy costs are becoming an increasing burden of companies and individuals, influencing negative financial effects in business or private budgets. First efficient step in energy saving should be reduction of heat losses by installation of additional insulation. Our Mineral Wool products provide the optimum solution for every application and are therefore ideally suited for energy and cost-conscious usage.

Sustainable Mineral Wool insulation materials with ECOSE® Technology meet all of the relevant standards and ensure an excellent indoor air quality.

with ECOSE® TECHNOLOGY

EXPERIENCE THE NEXT STEP IN INSULATION

Our Mineral Wool products with ECOSE® Technology!

Following the successful introduction of ECOSE® Technology in the Buildings Solutions product range, Knauf Insulation has decided to extend its innovative binder technology to its product portfolio in Technical Solutions.

Binder without added formaldehyde

The binder is mainly derived from naturally occuring raw materials. There are no added formaldehydes during the manufacturing process. The products made with ECOSE® Technology **contain no phenols.**

Natural appearance

Insulation products made with ECOSE® Technology **contain no dyes or artificial colours**.

Technical performance

Products with ECOSE® Technology ensure high insulation efficiency for a thermal comfort as well as non-combustibility for personal safety, being **compliant with all relevant European standards.**

Environmentally friendly

Renewable components in the binder are replacing most fossil-fuel based materials. **We are saving energy reduce energy bills CO_2 emissions.**

with ECOSE® TECHNOLOGY

SPECIFIERS CAN TRUST ON **SUSTAINABLY DESIGNED PRODUCTS** AND INSTALLERS BENEFIT FROM **USER FRIENDLYNESS.**

Benefits for Installers

EUROFINS GOLD CERTIFIED
INDOOR AIR QUALITY IMPACT

- Reduction of emissions in the installing environment

USER FRIENDLINESS

- Easy to cut
- Low odor
- Fitting accuracy
- Easy to handle

Meeting TECHNICAL REQUIREMENTS

- Product properties meeting or exceeding requirements from CE, AGI Q 132, EnEV, MED, ASTM

PROFESSIONAL SOLUTIONS

- Product range delivering high thermal, mechanical and fire-resistance performances

Benefits for Specifiers

EUROFINS GOLD CERTIFIED
INDOOR AIR QUALITY IMPACT

- Enhancement of indoor air quality
- Proved compliance to all relevant legal and voluntary quality labels on product emissions in Europe

SUSTAINABLY DESIGNED PRODUCTS

- In line with several green building rating schemes (e.g. BREEAM, LEED, HQE, DGNB, WELL)
- High environmental standards with ISO 14000 certification

RELIABILITY

- Knauf Insulation product range is delivering high thermal, mechanical and fire-resistance performances
- CE marking guarantees compliance to European law (CPR 305-2011)

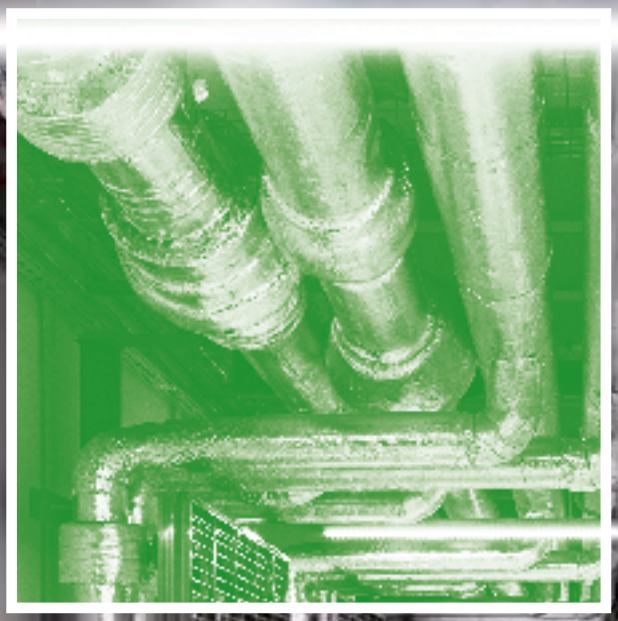
SAFETY

- Non-combustibility (A1/A2-s1, d0)
- Melting point of fibres > 1.000°C
- High manufacturing and product standards with ISO 9000 certification

HVAC

THERMAL INSULATION EXPERTS FOR HVAC

THERMO-TEK



PIPE SECTION

Thermo-teK PS Pro ALU

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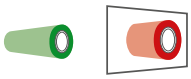
THERMO-TEK

with ECOSE TECHNOLOGY

PRODUCT INFO

VIDEO



DESCRIPTION

Thermo-teK PS Pro ALU is a circular-wound Rock Mineral Wool pipe section (pre-formed pipe DN up to 300 mm) **with premium thermal conductivity, excellent fire resistance** and minimum product tolerances of the inner and outer diameters thanks to the use of innovative production technologies. The 1200 mm long pipe section is slit on one side for easier installation and **laminated with fibre glass reinforced, tear-resistant aluminium foil, which acts as a water vapour barrier and a self-adhesive seal to seal the longitudinal slit/joint.** Due to the product's technical properties, installation of additional cladding on indoor pipes is not needed.

Knauf Insulation Thermo-teK PS Pro ALU is produced with **ECOSE® Technology,** a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation – heating, water supply**
- **Fire protection in wall/ceiling penetration**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **Fire resistance up to EI120 for wall/ceiling penetrations is required**
- **Premium thermal conductivity is needed**
- **Protection against water vapour and a clean environment is required**

BENEFITS

- Certified fire resistance up to EI120 for wall/ceiling penetrations
- 2-in-1 solution – optimal thermal & fire performance
- Premium thermal conductivity
- Longitudinal self-adhesive closure
- Fastest way of insulating pipes (pre-formed pipe sections, facing/finishing layer already applied on the product / no glue needed / no cladding needed for indoor applications)
- Minimum tolerances of thicknesses and diameters
- Nice visual appearance of the insulation (ALU facing)
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305NPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications							Unit	Standard
Reaction to fire*	–	$A2_L$-s1, d0 $D_0 \leq 300$ mm				$A2_L$-s1, d0 $D_0 > 300$ mm			–	EN 13501-1
Thermal conductivity depending on mean temperature	ϑ	10	40	50	100	150	200	250	°C	EN ISO 8497
	λ	0,033	0,035	0,037	0,044	0,052	0,062	0,073	W/(m·K)	
Maximum service temperature	ST(+)	500							°C	EN ISO 18096
Service temperature aluminium facing	–	≤ 80							°C	–
Water soluble chloride ions (AS quality)	–	≤ 10							ppm	EN ISO 12624
Density	ρ	ca. 100–120							kg/m^3	EN ISO 18098
Water absorption	W_p	≤ 1,0							kg/m^2	EN ISO 12623
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200							m	EN ISO 12629
Silicone-free fibres**	–	No emissions of lacquering disturbing substances							–	–
Melting point of fibres	ϑ	≥ 1000							°C	DIN 4102-17
Specific heat capacity	C_p	1030							J/(kgK)	EN ISO 10456
Designation code	–	MW-EN14303-T8-ST(+)500-WS1-MV2-CL10 (OD < 150 mm)							–	EN 14303
	–	MW-EN14303-T9-ST(+)500-WS1-MV2-CL10 (OD ≥ 150 mm)							–	EN 14303

* Depending on external diameter

** Fullfills the criteria of Volkswagen standard 3.10.7 and is free from substances which prevent paint wetting.

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

NOTES ON INSTALLATION

- Before starting installation, ensure that all adhesion surfaces are dry and free from dust, grease and dirt.
- To facilitate the opening the Thermo-teK PS Pro ALU are provided with a slight slit on the side opposite to the longitudinal opening. Therefore it is much easier to push the section over the pipe which is to be insulated.
- Before the longitudinal seam can be closed with the self-adhesive overlap, the protective strip must be removed. The strip can also be removed in sections. Before the self-adhesive coatings are pressed together, the halves of the pipe section must be precisely aligned. Firm pressure on the self-adhesive coating must be ensured over the entire length of the longitudinal seam.
- The butt joints of the pipe sections must be sealed with self-adhesive aluminium tape so that both adjacent pipe sections are equally covered with aluminium tape.
- The initial adhesive force may be reduced if the ambient temperature at the time of processing is less than 10 °C. In this case, especially careful work is required, whereby the necessary pressure to achieve a permanent bond must be increased and must be ensured by the installer.
- National requirements to secure the pipe sections has to be checked

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 20 mm		Thickness 25 mm		Thickness 30 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
15	-	-	979,20	40,80	720,00	30,00	547,20	22,80	15
18	-	-	892,80	37,20	662,40	27,60	460,80	19,20	18
22	15	1/2	777,60	32,40	576,00	24,00	432,00	18,00	22
28	20	3/4	633,60	26,40	496,80	27,60	374,40	15,60	28
35	25	1	540,00	30,00	388,80	21,60	345,60	19,20	35
42	32	1 1/4	388,80	21,60	345,60	19,20	259,20	14,40	42
48	40	1 1/2	345,60	19,20	302,40	16,80	216,00	12,00	48
54	-	-	302,40	16,80	216,00	12,00	172,80	9,60	54
60	50	2	259,20	14,40	216,00	12,00	172,80	9,60	60
64	-	-	216,00	12,00	194,40	10,80	172,80	9,60	64
70	-	-	237,60	13,20	194,40	10,80	194,40	10,80	70
76	65	2 1/2	194,40	10,80	172,80	9,60	151,20	8,40	76
89	80	3	194,40	10,80	151,20	8,40	129,60	7,20	89
102	-	-	86,40	4,80	86,40	4,80	86,40	4,80	102
108	-	-	86,40	4,80	86,40	4,80	86,40	4,80	108
114	100	4	108,00	6,00	86,40	4,80	86,40	4,80	114
127	-	-			86,40	4,80	86,40	4,80	127
133	-	-			86,40	4,80	86,40	4,80	133
140	125	5			86,40	4,80	79,20	1,20	140
156	-	-			72,00	1,20	72,00	1,20	156
159	-	-			72,00	1,20	62,40	1,20	159
168	150	6			64,80	1,20	60,00	1,20	168
194	-	-			52,80	1,20	48,00	1,20	194
219	200	8			40,80	1,20	38,40	1,20	219
245	-	-			38,40	1,20	33,60	1,20	245
259	-	-			31,20	1,20	28,80	1,20	259
273	250	10			28,80	1,20	26,40	1,20	273
305	-	-			21,60	1,20	21,60	1,20	305
324	300	12			21,60	1,20	21,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 40 mm		Thickness 50 mm		Thickness 60 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
15	-	-	345,60	14,40					
18	-	-	316,80	13,20					
22	15	1/2	259,20	10,80	194,40	10,80	129,60	7,20	22
28	20	3/4	259,20	14,40	194,40	10,80	129,60	7,20	28
35	25	1	194,40	10,80	172,80	9,60	108,00	6,00	35
42	32	1 1/4	194,40	10,80	129,60	7,20	108,00	6,00	42
48	40	1 1/2	194,40	10,80	129,60	7,20	86,40	4,80	48
54	-	-	172,80	9,60	108,00	6,00	86,40	4,80	54
60	50	2	129,60	7,20	108,00	6,00	86,40	4,80	60
64	-	-	129,60	7,20	86,40	4,80	86,40	4,80	64
70	-	-	108,00	6,00	86,40	4,80	86,40	4,80	70
76	65	2 1/2	105,00	6,00	86,40	4,80	86,40	4,80	76
89	80	3	86,40	4,80	86,40	4,80	72,00	1,20	89
102	-	-	86,40	4,80	76,80	1,20	62,40	1,20	102
108	-	-	86,40	4,80	72,00	1,20	60,00	1,20	108
114	100	4	86,40	4,80	72,00	1,20	60,00	1,20	114
127	-	-	72,00	1,20	60,00	1,20	48,00	1,20	127
133	-	-	72,00	1,20	60,00	1,20	48,00	1,20	133
140	125	5	64,80	1,20	57,60	1,20	48,00	1,20	140
156	-	-	60,00	1,20	48,00	1,20	38,40	1,20	156
159	-	-	60,00	1,20	48,00	1,20	43,20	1,20	159
168	150	6	55,20	1,20	48,00	1,20	38,40	1,20	168
194	-	-	43,20	1,20	38,40	1,20	31,20	1,20	194
219	200	8	38,40	1,20	31,20	1,20	28,80	1,20	219
245	-	-	26,40	1,20	24,00	1,20	21,60	1,20	245
259	-	-	24,00	1,20	21,60	1,20	21,60	1,20	259
273	250	10	21,60	1,20	21,60	1,20	21,60	1,20	273
305	-	-	21,60	1,20	16,80	1,20	14,40	1,20	305
324	300	12	16,80	1,20	14,40	1,20	14,40	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 70 mm		Thickness 80 mm		Thickness 90 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
22	15	1/2	86,40	4,80					
28	20	3/4	86,40	4,80	86,40	4,80			28
35	25	1	86,40	4,80	86,40	4,80			35
42	32	1 1/4	86,40	4,80	76,80	1,20	62,40	1,20	42
48	40	1 1/2	86,40	4,80	72,00	1,20	60,00	1,20	48
54	-	-	86,40	4,80	72,00	1,20	60,00	1,20	54
60	50	2	79,20	1,20	64,80	1,20	57,60	1,20	60
64	-	-	74,40	1,20	60,00	1,20	52,80	1,20	64
70	-	-	72,00	1,20	60,00	1,20	48,00	1,20	70
76	65	2 1/2	72,00	1,20	60,00	1,20	48,00	1,20	76
89	80	3	60,00	1,20	50,40	1,20	43,20	1,20	89
102	-	-	55,20	1,20	48,00	1,20	38,40	1,20	102
108	-	-	50,40	1,20	48,00	1,20	38,40	1,20	108
114	100	4	48,00	1,20	43,20	1,20	38,40	1,20	114
127	-	-	43,20	1,20	38,40	1,20	31,20	1,20	127
133	-	-	40,80	1,20	38,40	1,20	31,20	1,20	133
140	125	5	43,20	1,20	38,40	1,20	31,20	1,20	140
156	-	-	38,40	1,20	31,20	1,20	26,40	1,20	156
159	-	-	38,40	1,20	31,20	1,20	28,80	1,20	159
168	150	6	33,60	1,20	28,80	1,20	24,00	1,20	168
194	-	-	28,80	1,20	24,00	1,20	21,60	1,20	194
219	200	8	24,00	1,20	21,60	1,20	21,60	1,20	219
245	-	-	21,60	1,20	19,20	1,20	14,40	1,20	245
259	-	-	19,20	1,20	16,80	1,20	14,40	1,20	259
273	250	10	16,80	1,20	14,40	1,20	12,00	1,20	273
305	-	-	14,40	1,20	12,00	1,20	12,00	1,20	305
324	300	12	12,00	1,20	12,00	1,20	9,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 100 mm		Thickness 120 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	
42	32	1 1/4	52,80	1,20			
48	40	1 1/2	52,80	1,20			
54	-	-	50,40	1,20	38,40	1,20	54
60	50	2	48,00	1,20	38,40	1,20	60
64	-	-	48,00	1,20	33,60	1,20	64
70	-	-	40,80	1,20	31,20	1,20	70
76	65	2 1/2	43,20	1,20	31,20	1,20	76
89	80	3	38,40	1,20	28,80	1,20	89
102	-	-	33,60	1,20	24,00	1,20	102
108	-	-	33,60	1,20	24,00	1,20	108
114	100	4	31,20	1,20	24,00	1,20	114
127	-	-	28,80	1,20	21,60	1,20	127
133	-	-	26,40	1,20	21,60	1,20	133
140	125	5	28,80	1,20	21,60	1,20	140
156	-	-	21,60	1,20	21,60	1,20	156
159	-	-	24,00	1,20	21,60	1,20	159
168	150	6	21,60	1,20	16,80	1,20	168
194	-	-	21,60	1,20	14,40	1,20	194
219	200	8	16,80	1,20	12,00	1,20	219
245	-	-	14,40	1,20	12,00	1,20	245
256	-	-	12,00	1,20	12,00	1,20	259
273	250	10	12,00	1,20	9,60	1,20	273
305	-	-	9,60	1,20	9,60	1,20	305
324	300	12	9,60	1,20	9,60	1,20	324

NOTE
Pipes in larger dimensions, with DN more than 300 mm, can be insulated with Power-teK PB 640/680 ALU- see page 62.

Other dimensions or packaging units on request! The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Individual pipe sections (packaging content = 1,20 m) are packed in foil.

- ☐ Cardboard packaging, 18 cardboard boxes on a pallet, dimensions cardboard:
  H x W x D = 1200 x 400 x 400 mm
- ☐ Cardboard packaging, 24 cardboard boxes on a pallet, dimensions Carton: H x W x D = 1200 x 400 x 300 mm

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BACK TO CONTENT PAGE

Thermo-teK PS Eco ALU

PRODUCT INFO

VIDEO

DESCRIPTION

Thermo-teK PS Eco ALU is a circular-wound Rock Mineral Wool pipe section (pre-formed pipe DN up to 300 mm) with minimum product tolerances of the inner and outer diameters thanks to the use of innovative production technologies. The 1200 mm long pipe section is slit on one side for easier installation **and laminated with fibre glass reinforced, tear-resistant aluminium foil, which acts as a water vapour barrier and a self-adhesive seal to seal the longitudinal slit/ joint.** Due to the product's technical properties, **installation of additional cladding** on indoor pipes is not needed.

Knauf Insulation Thermo-teK PS Eco ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation – heating, water supply**
- **Pipes in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **Good thermal conductivity is needed**
- **A cleaner environment is required during the installation**

BENEFITS

- No additional cladding needed for indoor applications
- Good thermal conductivity
- Longitudinal self-adhesive closure
- Fastest way of insulating pipes (pre-formed pipe sections, facing/finishing layer already applied on the product / no glue needed)
- Minimum tolerances of thicknesses and diameters
- Nice visual appearance of the insulation (ALU facing)
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305YPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications					Unit	Standard
Reaction to fire*	–	$A2_L$-s1, d0 $D_o \leq 300$ mm			$A2_L$-s1, d0 $D_o > 300$ mm		–	EN 13501-1
Thermal conductivity depending on mean temperature	ϑ	10	40	50	100	150	°C	EN ISO 8497
	λ	0,033	0,037	0,039	0,046	0,053	W/(m·K)	
Maximum service temperature	ST(+)	450					°C	EN ISO 18096
Service temperature aluminium facing	–	≤ 80					°C	–
Water soluble chloride ions (AS quality)	–	≤ 10					ppm	EN ISO 12624
Density	ρ	ca. 85–100					kg/m^3	EN ISO 18098
Water absorption	W_p	≤ 1,0					kg/m^2	EN ISO 12623
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200					m	EN ISO 12629
Silicone-free fibres**	–	No emissions of lacquering disturbing substances					–	–
Melting point of fibres	ϑ	≥ 1000					°C	DIN 4102-17
Specific heat capacity	C_p	1030					J/(kgK)	EN ISO 10456
Designation code	–	MW-EN14303-T8-ST(+)250-WS1-MV2-CL10 (OD < 150 mm)					–	EN 14303
	–	MW-EN14303-T9-ST(+)250-WS1-MV2-CL10 (OD ≥ 150 mm)					–	EN 14303

* Depending on external diameter

** Fullfills the criteria of Volkswagen standard 3.10.7 and is free from substances which prevent paint wetting.

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

NOTES ON INSTALLATION

- Before starting installation, ensure that all adhesion surfaces are dry and free from dust, grease and dirt.
- To facilitate the opening the Thermo-teK PS Pro ALU are provided with a slight slit on the side opposite to the longitudinal opening. Therefore it is much easier to push the section over the pipe which is to be insulated.
- Before the longitudinal seam can be closed with the self-adhesive overlap, the protective strip must be removed. The strip can also be removed in sections. Before the self-adhesive coatings are pressed together, the halves of the pipe section must be precisely aligned. Firm pressure on the self-adhesive coating must be ensured over the entire length of the longitudinal seam.
- The butt joints of the pipe sections must be sealed with self-adhesive aluminium tape so that both adjacent pipe sections are equally covered with aluminium tape.
- The initial adhesive force may be reduced if the ambient temperature at the time of processing is less than 10 °C. In this case, especially careful work is required, whereby the necessary pressure to achieve a permanent bond must be increased and must be ensured by the installer.
- National requirements to secure the pipe sections has to be checked

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 20 mm		Thickness 25 mm		Thickness 30 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
15	-	-	979,20	40,80	720,00	30,00	547,20	22,80	15
18	-	-	892,80	37,20	662,40	27,60	460,80	19,20	18
22	15	1/2	777,60	32,40	576,00	24,00	432,00	18,00	22
28	20	3/4	633,60	26,40	489,60	20,40	374,40	15,60	28
35	25	1	540,00	30,00	432,00	24,00	345,60	19,20	35
42	32	1 1/4	432,00	24,00	345,60	19,20	259,20	14,40	42
48	40	1 1/2	345,60	19,20	302,40	16,80	216,00	12,00	48
54	-	-	345,60	19,20	259,20	14,40	194,40	10,80	54
60	50	2	280,80	15,60	216,00	12,00	194,40	10,80	60
64	-	-	259,20	14,40	194,40	10,80	194,40	10,80	64
70	-	-	237,60	13,20	194,40	10,80	194,40	10,80	70
76	65	2 1/2	194,40	10,80	194,40	10,80	151,20	8,40	76
89	80	3	194,40	10,80	129,60	7,20	129,60	7,20	89
102	-	-	129,60	7,20	108,00	6,00	108,00	6,00	102
108	-	-	108,00	6,00	108,00	6,00	86,40	4,80	108
114	100	4	108,00	6,00	86,40	4,80	86,40	4,80	114
127	-	-			86,40	4,80	86,40	4,80	127
133	-	-			86,40	4,80	86,40	4,80	133
140	125	5			86,40	4,80	79,20	1,20	140
156	-	-			72,00	1,20	72,00	1,20	156
159	-	-			72,00	1,20	62,40	1,20	159
168	150	6			64,80	1,20	60,00	1,20	168
194	-	-			52,80	1,20	48,00	1,20	194
219	200	8					38,40	1,20	219
245	-	-					33,60	1,20	245
259	-	-					28,80	1,20	259
273	250	10					26,40	1,20	273
305	-	-					21,60	1,20	305
324	300	12					21,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 40 mm		Thickness 50 mm		Thickness 60 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
18	-	-	316,80	13,20					
22	15	1/2	259,20	10,80	194,40	10,80	129,60	7,20	22
28	20	3/4	259,20	14,40	194,40	10,80	129,60	7,20	28
35	25	1	194,40	10,80	172,80	9,60	108,00	6,00	35
42	32	1 1/4	194,40	10,80	129,60	7,20	108,00	6,00	42
48	40	1 1/2	194,40	10,80	129,60	7,20	86,40	4,80	48
54	-	-	172,80	9,60	108,00	6,00	86,40	4,80	54
60	50	2	129,60	7,20	108,00	6,00	86,40	4,80	60
64	-	-	129,60	7,20	108,00	6,00	86,40	4,80	64
70	-	-	108,00	6,00	86,40	4,80	86,40	4,80	70
76	65	2 1/2	108,00	6,00	86,40	4,80	86,40	4,80	76
89	80	3	86,40	4,80	86,40	4,80	72,00	1,20	89
102	-	-	86,40	4,80	76,80	1,20	62,40	1,20	102
108	-	-	86,40	4,80	72,00	1,20	60,00	1,20	108
114	100	4	86,40	4,80	72,00	1,20	60,00	1,20	114
127	-	-	72,00	1,20	60,00	1,20	48,00	1,20	127
133	-	-	72,00	1,20	60,00	1,20	48,00	1,20	133
140	125	5	64,80	1,20	57,60	1,20	48,00	1,20	140
156	-	-	60,00	1,20	48,00	1,20	38,40	1,20	156
159	-	-	60,00	1,20	48,00	1,20	38,40	1,20	159
168	150	6	55,20	1,20	48,00	1,20	38,40	1,20	168
194	-	-	43,20	1,20	38,40	1,20	31,20	1,20	194
219	200	8	38,40	1,20	31,20	1,20	28,80	1,20	219
245	-	-	26,40	1,20	24,00	1,20	21,60	1,20	245
259	-	-	24,00	1,20	21,60	1,20	21,60	1,20	259
273	250	10	21,60	1,20	21,60	1,20	21,60	1,20	273
305	-	-	21,60	1,20	16,80	1,20	14,40	1,20	305
324	300	12	16,80	1,20	14,40	1,20	14,40	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 70 mm		Thickness 80 mm		Thickness 90 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
22	15	1/2	86,40	4,80					
28	20	3/4	86,40	4,80					
35	25	1	86,40	4,80	86,40	4,80			35
42	32	1 1/4	86,40	4,80	76,80	1,20			42
48	40	1 1/2	86,40	4,80	72,00	1,20	60,00	1,20	48
54	-	-	86,40	4,80	72,00	1,20	60,00	1,20	54
60	50	2	79,20	1,20	64,80	1,20	57,60	1,20	60
64	-	-	74,40	1,20	60,00	1,20	52,80	1,20	64
70	-	-	72,00	1,20	60,00	1,20	48,00	1,20	70
76	65	2 1/2	72,00	1,20	60,00	1,20	48,00	1,20	76
89	80	3	60,00	1,20	50,40	1,20	43,20	1,20	89
102	-	-	55,20	1,20	48,00	1,20	38,40	1,20	102
108	-	-	50,40	1,20	48,00	1,20	38,40	1,20	108
114	100	4	48,00	1,20	43,20	1,20	38,40	1,20	114
127	-	-	43,20	1,20	38,40	1,20	31,20	1,20	127
133	-	-	40,80	1,20	38,40	1,20	31,20	1,20	133
140	125	5	43,20	1,20	38,40	1,20	31,20	1,20	140
156	-	-	38,40	1,20	31,20	1,20	26,40	1,20	156
159	-	-	38,40	1,20	31,20	1,20	28,80	1,20	159
168	150	6	33,60	1,20	28,80	1,20	24,00	1,20	168
194	-	-	28,80	1,20	24,00	1,20	21,60	1,20	194
219	200	8	24,00	1,20	21,60	1,20	21,60	1,20	219
245	-	-	21,60	1,20	19,20	1,20	14,40	1,20	245
259	-	-	19,20	1,20	16,80	1,20	14,40	1,20	259
273	250	10	16,80	1,20	14,40	1,20	12,00	1,20	273
305	-	-	14,40	1,20	12,00	1,20	12,00	1,20	305
324	300	12	12,00	1,20	12,00	1,20	9,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 100 mm		Thickness 120 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	
42	32	1 1/4	52,80	1,20			
48	40	1 1/2	50,40	1,20			
54	-	-	48,00	1,20	38,40	1,20	54
60	50	2	48,00	1,20	38,40	1,20	60
64	-	-	40,80	1,20	33,60	1,20	64
70	-	-	43,20	1,20	31,20	1,20	70
76	65	2 1/2	38,40	1,20	31,20	1,20	76
89	80	3	33,60	1,20	28,80	1,20	89
102	-	-	33,60	1,20	24,00	1,20	102
108	-	-	31,20	1,20	24,00	1,20	108
114	100	4	28,80	1,20	24,00	1,20	114
127	-	-	26,40	1,20	21,60	1,20	127
133	-	-	28,80	1,20	21,60	1,20	133
140	125	5	21,60	1,20	21,60	1,20	140
156	-	-	24,00	1,20	21,60	1,20	156
159	-	-	21,60	1,20	21,60	1,20	159
168	150	6	21,60	1,20	16,80	1,20	168
194	-	-	16,80	1,20	14,40	1,20	194
219	200	8	14,40	1,20	12,00	1,20	219
245	-	-	12,00	1,20	12,00	1,20	245
259	-	-	12,00	1,20	12,00	1,20	259
273	250	10	9,60	1,20	9,60	1,20	273
305	-	-	9,60	1,20	9,60	1,20	305
324	300	12			9,60	1,20	324

NOTE

Pipes in larger dimensions, with DN more than 300 mm, can be insulated with Power-teK PB 640/680 ALU- see page 62.

Other dimensions or packaging units on request! The technical details are for information only. Please refer to the data sheet for complete current details. www.knaufinsulation-ts.com

Individual pipe sections (packaging content = 1,20 m) are packed in foil.

- ☐ Cardboard packaging, 18 cardboard boxes on a pallet, dimensions cardboard:
  H x W x D = 1200 x 400 x 400 mm
- ☐ Cardboard packaging, 24 cardboard boxes on a pallet, dimensions
  Carton: H x W x D = 1200 x 400 x 300 mm

PIPE SECTION

Thermo-teK PS Eco

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THERMO-TEK

with ECOSE® TECHNOLOGY

PRODUCT INFO

VIDEO

DESCRIPTION

Thermo-teK PS Eco is a circular-wound Rock Mineral Wool pipe section (pre-formed pipe DN up to 300 mm) with minimum product tolerances of the inner and outer diameters thanks to the use of innovative production technologies. The 1200 mm long pipe section is slit on one side for easier installation. Due to the product's technical properties, **installation of additional cladding** on pipes is very easy and fast.

Knauf Insulation Thermo-teK PS Eco is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation – heating, water supply**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **Good thermal conductivity is needed**
- **Fast installation of additional cladding is required**

BENEFITS

- Fast and easy installation of additional cladding
- Minimum tolerances of thicknesses and diameters
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305YPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications					Unit	Standard
Reaction to fire	–	A1$_L$					–	EN 13501-1
Thermal conductivity depending on mean temperature	ϑ	10	40	50	100	150	°C	EN ISO 8497
	λ	0,033	0,037	0,039	0,046	0,053	W/(m·K)	
Maximum service temperature	ST(+)	450					°C	EN ISO 18096
Water soluble chloride ions (AS quality)	–	≤ 10					ppm	EN ISO 12624
Density	ρ	ca. 85–100					kg/m^3	EN ISO 18098
Water absorption	W_p	≤ 1,0					kg/m^2	EN ISO 12623
Water vapour diffusion resistance	μ	1					–	EN 14303
Silicone-free fibres*	–	No emissions of lacquering disturbing substances					–	–
Melting point of fibres	ϑ	≥ 1000					°C	DIN 4102-17
Specific heat capacity	C_p	1030					J/(kgK)	EN ISO 10456
Designation code	–	MW–EN14303–T8-ST(+)250–WS1–CL10 (OD < 150 mm)					–	EN 14303
	–	MW–EN14303–T9-ST(+)250–WS1–CL10 (OD ≥ 150 mm)					–	EN 14303

* Fullfills the criteria of Volkswagen standard 3.10.7 and is free from substances which prevent paint wetting.
The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

NOTES ON INSTALLATION

- Before starting installation, ensure that all adhesion surfaces are dry and free from dust, grease and dirt.
- To facilitate the opening the Thermo-teK PS Pro ALU are provided with a slight slit on the side opposite to the longitudinal opening. Therefore it is much easier to push the section over the pipe which is to be insulated.
- Before the longitudinal seam can be closed with the self-adhesive overlap, the protective strip must be removed. The strip can also be removed in sections. Before the self-adhesive coatings are pressed together, the halves of the pipe section must be precisely aligned. Firm pressure on the self-adhesive coating must be ensured over the entire length of the longitudinal seam.
- The butt joints of the pipe sections must be sealed with self-adhesive aluminium tape so that both adjacent pipe sections are equally covered with aluminium tape.
- The initial adhesive force may be reduced if the ambient temperature at the time of processing is less than 10 °C. In this case, especially careful work is required, whereby the necessary pressure to achieve a permanent bond must be increased and must be ensured by the installer.
- National requirements to secure the pipe sections has to be checked.

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Internal Ø (mm)	DN (mm)	NPS (")	Thickness 20 mm		Thickness 25 mm		Thickness 30 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
15	-	-	979,20	40,80	720,00	30,00	547,20	22,80	15
18	-	-	892,80	37,20	662,40	27,60	460,80	19,20	18
22	15	1/2	777,60	32,40	576,00	24,00	432,00	18,00	22
28	20	3/4	633,60	26,40	489,60	20,40	374,40	15,60	28
35	25	1	540,00	30,00	432,00	24,00	345,60	19,20	35
42	32	1 1/4	432,00	24,00	345,60	19,20	259,20	14,40	42
48	40	1 1/2	345,60	19,20	302,40	16,80	216,00	12,00	48
54	-	-	345,60	19,20	259,20	14,40	194,40	10,80	54
60	50	2	280,80	15,60	216,00	12,00	194,40	10,80	60
64	-	-	259,20	14,40	194,40	10,80	194,40	10,80	64
70	-	-	237,60	13,20	194,40	10,80	194,40	10,80	70
76	65	2 1/2	194,40	10,80	194,40	10,80	151,20	8,40	76
89	80	3	194,40	10,80	129,60	7,20	108,00	6,00	89
102	-	-	129,60	7,20	108,00	6,00	108,00	6,00	102
108	-	-	108,00	6,00	108,00	6,00	86,40	4,80	108
114	100	4	108,00	6,00	86,40	4,80	86,40	4,80	114
127	-	-			86,40	4,80	86,40	4,80	127
133	-	-			86,40	4,80	86,40	4,80	133
140	125	5			86,40	4,80	79,20	1,20	140
156	-	-			72,00	1,20	72,00	1,20	156
159	-	-			72,00	1,20	62,40	1,20	159
168	150	6			64,80	1,20	60,00	1,20	168
194	-	-			52,80	1,20	48,00	1,20	194
219	200	8					38,40	1,20	219
245	-	-					33,60	1,20	245
259	-	-					28,80	1,20	259
273	250	10					26,40	1,20	273
305	-	-					21,60	1,20	305
324	300	12					21,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 40 mm		Thickness 50 mm		Thickness 60 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
18	-	-	316,80	13,20					
22	15	1/2	259,20	10,80	194,40	10,80	129,60	7,20	22
28	20	3/4	259,20	14,40	194,40	10,80	129,60	7,20	28
35	25	1	194,40	10,80	172,80	9,60	108,00	6,00	35
42	32	1 1/4	194,40	10,80	129,60	7,20	108,00	6,00	42
48	40	1 1/2	194,40	10,80	129,60	7,20	86,40	4,80	48
54	-	-	172,80	9,60	108,00	6,00	86,40	4,80	54
60	50	2	129,60	7,20	108,00	6,00	86,40	4,80	60
64	-	-	129,60	7,20	108,00	6,00	86,40	4,80	64
70	-	-	108,00	6,00	86,40	4,80	86,40	4,80	70
76	65	2 1/2	108,00	6,00	86,40	4,80	86,40	4,80	76
89	80	3	86,40	4,80	86,40	4,80	72,00	1,20	89
102	-	-	86,40	4,80	76,80	1,20	62,40	1,20	102
108	-	-	86,40	4,80	72,00	1,20	60,00	1,20	108
114	100	4	86,40	4,80	72,00	1,20	60,00	1,20	114
127	-	-	72,00	1,20	60,00	1,20	48,00	1,20	127
133	-	-	72,00	1,20	60,00	1,20	48,00	1,20	133
140	125	5	64,80	1,20	57,60	1,20	48,00	1,20	140
156	-	-	60,00	1,20	48,00	1,20	38,40	1,20	156
159	-	-	60,00	1,20	48,00	1,20	38,40	1,20	159
168	150	6	55,20	1,20	48,00	1,20	38,40	1,20	168
194	-	-	43,20	1,20	38,40	1,20	31,20	1,20	194
219	200	8	38,40	1,20	31,20	1,20	28,80	1,20	219
245	-	-	26,40	1,20	24,00	1,20	21,60	1,20	245
259	-	-	24,00	1,20	21,60	1,20	21,60	1,20	259
273	250	10	21,60	1,20	21,60	1,20	21,60	1,20	273
305	-	-	21,60	1,20	16,80	1,20	14,40	1,20	305
324	300	12	16,80	1,20	14,40	1,20	14,40	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 70 mm		Thickness 80 mm		Thickness 90 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
22	15	1/2	86,40	4,80					
28	20	3/4	86,40	4,80					
35	25	1	86,40	4,80	86,40	4,80			35
42	32	1 1/4	86,40	4,80	76,80	1,20			42
48	40	1 1/2	86,40	4,80	72,00	1,20	60,00	1,20	48
54	-	-	86,40	4,80	72,00	1,20	60,00	1,20	54
60	50	2	79,20	1,20	64,80	1,20	57,60	1,20	60
64	-	-	74,40	1,20	60,00	1,20	52,80	1,20	64
70	-	-	72,00	1,20	60,00	1,20	48,00	1,20	70
76	65	2 1/2	72,00	1,20	60,00	1,20	48,00	1,20	76
89	80	3	60,00	1,20	50,40	1,20	43,20	1,20	89
102	-	-	55,20	1,20	48,00	1,20	38,40	1,20	102
108	-	-	50,40	1,20	48,00	1,20	38,40	1,20	108
114	100	4	48,00	1,20	43,20	1,20	38,40	1,20	114
127	-	-	43,20	1,20	38,40	1,20	31,20	1,20	127
133	-	-	40,80	1,20	38,40	1,20	31,20	1,20	133
140	125	5	43,20	1,20	38,40	1,20	31,20	1,20	140
156	-	-	38,40	1,20	31,20	1,20	26,40	1,20	156
159	-	-	38,40	1,20	31,20	1,20	28,80	1,20	159
168	150	6	33,60	1,20	28,80	1,20	24,00	1,20	168
194	-	-	28,80	1,20	24,00	1,20	21,60	1,20	194
219	200	8	24,00	1,20	21,60	1,20	21,60	1,20	219
245	-	-	21,60	1,20	19,20	1,20	14,40	1,20	245
259	-	-	19,20	1,20	16,80	1,20	14,40	1,20	259
273	250	10	16,80	1,20	14,40	1,20	12,00	1,20	273
305	-	-	14,40	1,20	12,00	1,20	12,00	1,20	305
324	300	12	12,00	1,20	12,00	1,20	9,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 100 mm		Thickness 120 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	
48	40	1 1/2	52,80	1,20			
54	-	-	50,40	1,20	38,40	1,20	54
60	50	2	48,00	1,20	38,40	1,20	60
64	-	-	48,00	1,20	33,60	1,20	64
70	-	-	40,80	1,20	31,20	1,20	70
76	65	2 1/2	43,20	1,20	31,20	1,20	76
89	80	3	38,40	1,20	28,80	1,20	89
102	-	-	33,60	1,20	24,00	1,20	102
108	-	-	33,60	1,20	24,00	1,20	108
114	100	4	31,20	1,20	24,00	1,20	114
127	-	-	28,80	1,20	21,60	1,20	127
133	-	-	26,40	1,20	21,60	1,20	133
140	125	5	28,80	1,20	21,60	1,20	140
156	-	-	21,60	1,20	21,60	1,20	156
159	-	-	24,00	1,20	21,60	1,20	159
168	150	6	21,60	1,20	16,80	1,20	168
194	-	-	21,60	1,20	14,40	1,20	194
219	200	8	16,80	1,20	12,00	1,20	219
245	-	-	14,40	1,20	12,00	1,20	245
259	-	-	12,00	1,20	12,00	1,20	259
273	250	10	12,00	1,20	9,60	1,20	273
305	-	-	9,60	1,20	9,60	1,20	305
324	300	12	9,60	1,20	9,60	1,20	324

Other dimensions or packaging units on request! The technical details are for information only. Please refer to the data sheet for complete current details. www.knaufinsulation-ts.com

Individual pipe sections (packaging content = 1,20 m) are packed in foil.

☐ Cardboard packaging, 18 cardboard boxes on a pallet, dimensions cardboard:
H x W x D = 1200 x 400 x 400 mm

☐ Cardboard packaging, 24 cardboard boxes on a pallet, dimensions Carton: H x W x D = 1200 x 400 x 300 mm

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THERMO-TEK

Thermo-teK PH/PH INS

with ECOSE TECHNOLOGY

PRODUCT INFO

DESCRIPTION

Thermo-teK PH pipe support is a pipe bracket to **avoid thermal bridges**. It consist of the metal hanger and of a robust, pressure resistant Rock Mineral Wool core serving for a load transfer. The core is, like Thermo-teK PS Cld ALS, laminated with a **extra strong fibre glass** reinforced, tear-resistant aluminium foil and a self adhesive overlapping seal to close the radial opening.

Knauf Insulation Thermo-teK PH/PH INS is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- ✔ **Pipe lines.**

Pipe supports are used to take the weight load of installed pipe work at the fixing joints. Because of their low thermal conductivity they will mitigate thermal bridging to a large effect, in particular on chilled water and other cold lines.

- ✔ **Drinking water pipes**
- ✔ **Cooling water pipes**
- ✔ **Alternating temperature systems**
- ✔ **Outdoor wastewater pipes (rain and snow)**

BENEFITS

- ✔ Fire safe due to non-combustible Rock Mineral Wool A2L-s1, d0
- ✔ Low embedded CO_2
- ✔ Extra tough and water vapour tight aluminium facing with glass scrim reinforcing and therefore highly protective regarding possible damage
- ✔ Application range from 0 °C to +250 °C
- ✔ Simple and fast processing for cold and warm applications
- ✔ ECOSE® Technology without an additional formaldehide as a binder

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Maximum service temperature	ST(+)	250	°C	EN ISO 18096
Density	ρ	ca. 150	kg/m³	EN ISO 18098
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1	kg/m²	EN ISO 12623
Water vapour diffusion equivalent air layer thickness	S_d	≥ 1500	m	EN ISO 12629
Silicone-free fibres	-	No emissions of lacquering disturbing substances	-	–
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17

PACKAGING SPECIFICATIONS

Internal Ø (mm)	DN (mm)	NPS (")	Thickness (mm) 20	30	40	50	60	70	80	100	Internal Ø (mm)
			pcs./pcg.								
15	-	-	25		25						15
18	-	-	25		25						18
22	15	1/2	25		25						22
28	20	3/4	25	25	25						28
35	25	1	25	25	25						35
42	32	1 1/4	25		25	25					42
48	40	1 1/2	25			25					48
54	-	-		25		25	10				54
60	50	2		25			10				60
64	-	-		25			10				64
76	65	2 1/2		25			10	10	10		76
89	80	3		25			10			5	89
102	-	-		10			10		10		102
108	-	-		10			10			5	108
114	100	4		10			10			5	114
140	125	5		10				10		5	140
159	-	-		10				5		2	159
169	150	6			10			5		2	168
219	200	8			5			5		2	219
273	250	10			2				2		273
324	300	12			2				2		324

Other dimensions on request.

LAMELLA MAT

Thermo-teK LM Air ALU

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THERMO-TEK

PRODUCT INFO

VIDEO

DESCRIPTION

Thermo-teK LM Air ALU is a **lightweight Glass Mineral Wool mat**, consisting of individual mineral wool strips (lamellas) that are bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil. **Due to its excellent flexibility and lightweight in combination with good mechanical resistance and stiffness, it is a perfect solution for use in rectangular and circular ventilation ducts** as well as on small, round objects and pipes.

Knauf Insulation Thermo-teK LM Air ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Circular air ducts – outside insulation**
- **Pipe insulation – heating, water supply**
- **Ducts & pipes in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **A light and flexible solution is required**
- **A good visual appearance after installation is needed.**

BENEFITS

- Lightweight and very flexible solution (much lighter than similar products)
- Packed in strong bags that offer excellent protection from dirt, dust and moisture, also reusable as waste bag
- One (universal) product for different applications, forms, diameters and sizes
- Tear-resistant, sturdy aluminium lamination
- Easy to handle, cut and install around different shapes (perfect edge fit on rectangular ducts, perfect bending, staying solid / excellent forming even on small diameter pipes)
- Good mechanical resistance / stiffness (durable and robust)
- Professional visual appearance on finished installations
- User-friendly soft touch
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4338APCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications								Unit	Standard
Reaction to fire	-	A2 – s1, d0								–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	0	10	40	50	100	150	200	250	°C	EN 12667
	λ	0,034	0,036	0,042	0,043	0,054	0,067	0,082	0,100	W/(m·K)	
Maximum service temperature	ST(+)	250								°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80								°C	–
Density	ρ	ca. 28								kg/m³	EN ISO 29470
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200								m	EN 12086
Silicone free	-	No emissions of lacquering disturbing sustances								–	–
Designation code	-	MW-EN14303-T5-ST(+)250-MV2								–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Lenght* x Width x **Thickness**	Width 1000 mm - 15 bags/palet (either as 1 roll or 2 x 500 mm per bag)			Width 1200 mm - 12 bags/palet (either as 1 roll or 2x 600 mm per bag)	
mm	m²/PU	m²/pallet (2 rolls per bag)	m²/pallet (1 roll per bag)	m²/PU	m²/pallet
8000 x Width x **25**	8,00	112,00	120,00	9,60	115,20
8000 x Width x **30**	8,00	112,00	120,00	9,60	115,20
6000 x Width x **40**	6,00	84,00	90,00	7,20	86,40
5000 x Width x **50**	5,00	70,00	75,00	6,00	72,00
4000 x Width x **60**	4,00	56,00	60,00	4,80	57,60
3000 x Width x **80**	3,00	42,00	45,00	3,60	43,20
2500 x Width x **100**	2,50	35,00	37,50	3,00	36,00

* Fixed lengths on request

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Thermo-teK LM Eco ALU

PRODUCT INFO

DESCRIPTION

Thermo-teK LM Eco ALU is a **lightweight Rock Mineral Wool mat**, consisting of individual mineral wool strips (lamellas) that are bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil which adds to an optimal visual appearance of the application after installation.

Knauf Insulation Thermo-teK LM Eco ALU is produced with **ECOSE® Technology,** a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Circular air ducts – outside insulation**
- **Pipe insulation – heating, water supply**
- **Ducts & pipes in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **A light and economical solution is required**
- **A good visual appearance after installation is needed.**

BENEFITS

- Lightweight solution
- Economic solution
- Tear-resistant, sturdy aluminium lamination
- One (universal) product for different applications, forms, diameters and sizes
- Easy to handle, cut and install around different shapes
- Elastic, strong and flexible
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305MPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications							Unit	Standard
Reaction to fire	–	A1 [A2-s1, d0 (thickness: 20 mm and 25 mm)]							–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	10	40	50	100	150	200	250	°C	EN 12667
	λ	0,037	0,042	0,044	0,056	0,070	0,088	0,109	W/(m·K)	
Maximum service temperature	ST(+)	250							°C	EN ISO 18097
Service temperature aluminium facing	–	≤ 80							°C	–
Water soluble chloride ions (AS quality)	–	≤ 10							ppm	EN ISO 12624
Density	ρ	ca. 35							kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0							kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200							m	EN 12086
Melting point of fibres	ϑ	≥ 1000							°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances							–	–
Specific heat capacity	C_p	1030							J/(kgK)	EN ISO 10456
Designation code	–	MW-EN14303-T4-ST(+)250-WS1-MV2-CL10							–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width x **Thickness** (mm)	m²/PU**	m²/pallet
8000 x 500/1000 x **30**	8,00	120,00
6000 x 500/1000 x **40**	6,00	90,00
5000 x 500/1000 x **50**	5,00	75,00
4000 x 500/1000 x **60**	4,00	60,00
3000 x 500/1000 x **80**	3,00	45,00
2500 x 500/1000 x **100**	2,50	37,50

Insulation thickness > 50 mm upon request

* Fixed lengths on request

** PU = packaging unit (PU = 2 rolls with width 500 mm)

LAMELLA MAT

Thermo-teK LM Pro ALU

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THERMO-TEK

DESCRIPTION

Thermo-teK LM Pro ALU is a Rock Mineral Wool mat with **very good thermal conductivity**, consisting of individual mineral wool strips (lamellas) that are bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil which adds to an optimal visual appearance of the application after installation.

Knauf Insulation Thermo-teK LM Pro ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

BENEFITS

- Very good thermal conductivity
- Optimal visual appearance on finished installations
- Tear-resistant, sturdy aluminium lamination
- One (universal) product for different applications, forms, diameters and sizes
- Easy to handle, cut and install around different shapes
- Elastic, strong and flexible
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305HPCPR

CERTIFICATES

PRODUCT INFO

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Circular air ducts – outside insulation**
- **Pipe insulation – heating, water supply**
- **Ducts & pipes in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **Improved thermal conductivity is required**
- **A good visual appearance after installation is needed.**

PERFORMANCE

Properties	Reference	Description/specifications						Unit	Standard
Reaction to fire	-	A1 (A2-s1, d0 for 20 mm and 25 mm)						–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	40	50	100	150	200	250	°C	EN 12667
	λ	0,042	0,044	0,054	0,067	0,083	0,104	W/(m·K)	
Maximum service temperature	ST(+)	250						°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80						°C	–
Water soluble chloride ions (AS quality)	-	≤ 10						ppm	EN ISO 12624
Density	ρ	ca. 40						kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0						kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200						m	EN 12086
Melting point of fibres	ϑ	≥ 1000						°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances						–	–
Specific heat capacity	C_p	1030						J/(kgK)	EN ISO 10456
Designation code	-	MW-EN14303-T4-ST(+)250-WS1-MV2-CL10						–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width x **Thickness** (mm)	m²/PU**	m²/pallet
8000 x 500/1000 x **30**	8,00	120,00
6000 x 500/1000 x **40**	6,00	90,00
5000 x 500/1000 x **50**	5,00	75,00
4000 x 500/1000 x **60**	4,00	60,00
3000 x 500/1000 x **80**	3,00	45,00
2500 x 500/1000 x **100**	2,50	37,50

Insulation thickness > 50 mm upon request

* Fixed lengths on request

** PU = packaging unit (PU = 2 rolls with width 500 mm)

challenge.
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Thermo-teK FM 040-060

PRODUCT INFO

DESCRIPTION

Thermo-teK FM 040–060 is an unfaced, **durable and resistant** Rock Mineral Wool roll, used as universal solution for lining or multi-layer insulations. Depending on the density, it is recommended for use at temperatures up to 250 °C.

Knauf Insulation Thermo-teK FM 040–060 is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- ✔ **Rectangular air ducts – outside insulation**
- ✔ **Circular air ducts – outside insulation**
- ✔ **Ducts in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- ✔ **Higher mechanical resistance is required**
- ✔ **Lining or multi-layer insulation is needed**

BENEFITS

- ✔ Flexible
- ✔ Pressure resistant
- ✔ Dimensionally stable
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/R4305JPCPR for FM 040
www.dopki.com/R4305LPCPR for FM 050, 060

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications			Unit	Standard
Reaction to fire	-		A1		–	EN 13501-1
Density	ρ	40	50	60	kg/m³	EN ISO 29470
Thermal conductivity depending on temperature (10 °C)	λ	0,037	0,035	0,035	W/(m·K)	EN 12667
Longitudinal air flow resistance	r	≥ 5	≥ 10	≥ 15	kPa*s/m²	EN 29053
Maximum service temperature	ST(+)		250 (recommended)		°C	–
Water soluble chloride ions (AS quality)	-		≤ 10		ppm	EN ISO 12624
Water absorption	W_p		≤ 1,0		kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ		1		-	EN 13162
Melting point of fibres	ϑ		≥ 1000		°C	DIN 4102-17
Silicone-free fibres	-		No emissions of lacquering disturbing substances		–	–
Specific heat capacity	C_p		1030		J/(kgK)	EN ISO 10456
Designation code	-	MW-EN13162-T2-WS-AF5	MW-EN13162-T2-WS-AF10	MW-EN13162-T2-WS-AF15	–	EN 13162

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

* Further dimensions upon request

PACKAGING SPECIFICATIONS

	Length x Width* x **Thickness** (mm)	m²/roll	pc/PU	pc/pallet	m²/pallet
Thermo-teK FM 040	3000 x 1000 x **100**	3,00	1	21	63,00
Thermo-teK FM 050	3500 x 1000 x **50**	3,50	2	42	147,00
Thermo-teK FM 060	5000 x 1000 x **50**	5,00	1	21	105,00

Rolls/pallet = 21 or 42 pcs.
Loading unit = 1 pallet

FELT MAT

Thermo-teK FM 040-060 ALU

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THERMO-TEK

PRODUCT INFO

DESCRIPTION

Thermo-teK FM 040–060 ALU is an exceptionally durable and resistant Rock Mineral Wool roll with a fibre glass reinforced, tear-resistant aluminium lamination on one side, which acts as a water vapour barrier and additional reinforcement. As a universal solution for lining or multi-layer insulations, depending on the density, it is recommended for use at temperatures up to 250 °C.

Knauf Insulation Thermo-teK FM 040–060 is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Circular air ducts – outside insulation**
- **Ducts in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **Higher mechanical resistance of the material is needed**
- **A better visual appearance after installation is required**
- **A water vapour barrier is required.**

BENEFITS

- Tear-resistant, sturdy aluminium lamination
- Optimal visual appearance after installation
- High mechanical resistance
- Flexible and dimensionally stable solution
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/R4305JPCPR for FM 040 ALU
www.dopki.com/R4305LPCPR for FM 050 ALU, 060 ALU

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications			Unit	Standard
Reaction to fire	-	A1			–	EN 13501-1
Density	ρ	40	50	60	kg/m³	EN ISO 29470
Thermal conductivity depending on temperature (10 °C)	λ	0,037	0,035	0,035	W/(m·K)	EN 12667
Longitudinal air flow resistance	r	≥ 5	≥ 10	≥ 15	kPa*s/m²	EN 29053
Maximum service temperature	ST(+)	250 (recommended)			°C	–
Water soluble chloride ions (AS quality)	-	≤ 10			ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0			kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1			-	EN 13162
Melting point of fibres	ϑ	≥ 1000			°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances			–	–
Specific heat capacity	C_p	1030			J/(kgK)	EN ISO 10456
Designation code	-	MW-EN13162-T2-WS-AF5	MW-EN13162-T2-WS-AF10	MW-EN13162-T2-WS-AF15	–	EN 13162

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

	Length x Width* x **Thickness** (mm)	m²/roll	pc/PU	pc/pallet	m²/pallet
Thermo-teK FM 050 ALU	3000 x 1000 x **100**	3,00	1	21	63,00
Thermo-teK FM 060 ALU	5000 x 1000 x **50**	5,00	1	21	105,00

Rolls/pallet = 21 or 42 pcs.
Loading unit = 1 pallet

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ROLL

Thermo-teK RL Eco ALL

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THERMO-TEK

PRODUCT INFO

DESCRIPTION

Thermo-teK RL Eco ALL is a **lightweight** Glass Mineral Wool roll with **fibre glass reinforced, tear-resistant aluminium foil on one side and with overlap along the roll.**

Knauf Insulation Thermo-teK RL Eco ALL is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Circular air ducts – outside insulation**
- **Ducts in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **Overlapping during the installation is needed**
- **A better visual appearance after installation is required**
- **A water vapour barrier is required.**

BENEFITS

- Overlap / flanges along the roll
- Lightweight solution
- Tear-resistant, sturdy aluminium lamination
- Optimal visual appearance after installation
- Elastic, strong and flexible
- One universal solution for different applications, forms and sizes
- Easy to handle, cut and install around different shapes
- Compressed packaging (logistical advantage)
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4220MPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications				Unit	Standard
Reaction to fire	–	A2-s1, d0				–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	10	20	40	60	°C	EN 12667
	λ	0,034	0,036	0,040	0,044	W/(m·K)	
Maximum service temperature	ST(+)	60				°C	EN ISO 18097
Service temperature aluminium facing	–	≤ 80				°C	–
Density	ρ	ca. 25				kg/m³	EN ISO 29470
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200				m	EN 12086
Designation code	–	MW-EN14303-T2-ST(+)60				–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length x Width x **Thickness*** (mm)	m²/ roll	m²/pallet
16000 x 1200 x **25**	19,20	460,80
8000 x 1200 x **50**	9,60	230,40

* Further dimensions upon request

ROLL

Thermo-teK RL Eco ALP

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THERMO-TEK

PRODUCT INFO

DESCRIPTION

Thermo-teK RL Eco ALP is a lightweight Glass Mineral Wool roll with fibre glass reinforced, **tear-resistant kraft paper based aluminium foil on one side**, which adds an optimal **visual appearance** after installation.

Knauf Insulation Thermo-teK RL Eco ALP is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- ✔ **Rectangular air ducts – outside insulation**
- ✔ **Circular air ducts – outside insulation**
- ✔ **Ducts in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- ✔ **A better visual appearance after installation is required**
- ✔ **A water vapour barrier is required.**

BENEFITS

- ✔ Lightweight solution
- ✔ Tear-resistant, sturdy kraft paper based aluminium foil lamination
- ✔ Optimal visual appearance after installation
- ✔ Elastic, strong and flexible
- ✔ One universal solution for different applications, forms and sizes
- ✔ Easy to handle, cut and install around different shapes
- ✔ Compressed packaging (logistical advantage)
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4220MPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications				Unit	Standard
Reaction to fire	-	A2-s1, d0				–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	10	20	40	60	°C	EN 12667
	λ	0,034	0,036	0,040	0,044	W/(m·K)	
Maximum service temperature	ST(+)	60				°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80				°C	–
Density	ρ	ca. 25				kg/m³	EN ISO 29470
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200				m	EN 12086
Designation code	-	MW-EN14303-T2-ST(+)60				–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length x Width x **Thickness*** (mm)	m²/ roll	m²/pallet
13000 x 1200 x **25**	15,60	468,00
11000 x 1200 x **30**	13,20	396,80
8400 x 1200 x **40**	10,08	302,40
6700 x 1200 x **50**	8,04	241,20
5600 x 1200 x **60**	6,72	201,60
4200 x 1200 x **80**	5,04	151,20
3300 x 1200 x **100**	3,96	118,80

* Further dimensions upon request

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Thermo-teK RL Eco ALU

PRODUCT INFO

DESCRIPTION

Thermo-teK RL Eco ALU is a lightweight Glass Mineral Wool roll with **fibre glass reinforced, tear-resistant aluminium foil on one side**.

Knauf Insulation Thermo-teK RL Eco ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- ✔ **Rectangular air ducts – outside insulation**
- ✔ **Circular air ducts – outside insulation**
- ✔ **Ducts in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- ✔ **A good visual appearance after installation is needed**
- ✔ **A water vapour barrier is required.**

BENEFITS

- ✔ Lightweight solution
- ✔ Improved maximum service temperature
- ✔ Tear-resistant, sturdy aluminium lamination
- ✔ Optimal visual appearance after installation
- ✔ Elastic, strong and flexible
- ✔ One universal solution for different applications, forms and sizes
- ✔ Easy to handle, cut and install around different shapes
- ✔ Compressed packaging (logistical advantage)
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4207NPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications				Unit	Standard
Reaction to fire	–	A2–s1, d0				–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	10	50	100	150	°C	EN 12667
	λ	0,033	0,040	0,049	0,060	W/(m·K)	
Maximum service temperature*	ST(+)	150				°C	EN ISO 18097
Service temperature aluminium facing	–	≤ 80				°C	–
Density	ρ	ca. 25				kg/m³	EN ISO 29470
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200				m	EN 12086
Designation code	–	MW–EN14303–T2–ST(+)150				–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length x Width x **Thickness*** (mm)	m²/ roll	m²/pallet
12000 x 1200 x **25**	21,60	388,80
12000 x 1200 x **40**	14,40	259,20
9000 x 1200 x **50**	10,80	194,40

* Further dimensions upon request

ROLL

Thermo-teK RL Esy ALP

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THERMO-TEK

PRODUCT INFO

DESCRIPTION

Thermo-teK RL Esy ALP is a rolled Glass Mineral Wool fleece with reinforced aluminium foil on one side.

Knauf Insulation Thermo-teK RL Esy ALP is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Circular air ducts – outside insulation**
- **Ducts in technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **A better visual appearance after installation is required**
- **A water vapour barrier is required.**

BENEFITS

- Lightweight solution
- Tear-resistant, sturdy kraft paper based aluminium foil lamination
- Optimal visual appearance after installation
- Elastic, strong and flexible
- One universal solution for different applications, forms and sizes
- Easy to handle, cut and install around different shapes
- Compressed packaging (logistical advantage)
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4248HPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications				Unit	Standard
Reaction to fire	-	A2-s1, d0				–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	10	40	100	150	°C	EN 12667
	λ	0,039	0,044	0,070	0,090	W/(m·K)	
Service temperature aluminium facing	-	≤ 80				°C	–
Maximum service temperature	ST(+)	150				°C	EN ISO 18097
Water vapour diffusion equivalent air layer thickness ALU	S_d	≥ 200				–	EN 12086
Designation code	-	MW-EN14303-T2-ST(+)150				–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length x Width x **Thickness*** (mm)	m^2/ roll	m^2/pallet
22000 x 1200 x **30**	26,40	475,20
20000 x 1200 x **50**	24,00	432,00

* Further dimensions upon request

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Thermo-teK BD 035-100

PRODUCT INFO

DESCRIPTION

Thermo-teK BD 035-100 is an unfaced Rock Mineral Wool insulation board, which received the "Eurofins Indoor Air Comfort Gold" award in recognition of the ECOSE® Technology binder used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

Knauf Insulation Thermo-teK BD 035-100 is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications.

BENEFITS

- Rigid, flat and stable form
- Nice visual appearance with sharp edges
- Possibility to have customised dimensions
- Optimal thermal, acoustic and mechanical performance for a broad range of applications
- ECOSE® Technology

CERTIFICATES

Valid for BD 060 and BD 080: EPD®

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303/EN 13162
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Thermo-teK	Density ρ (kg/m³)	MST ST(+) (°C)	Thermal conductivity depending on temperature λ W/(mK)							DOP-No. -	Designation code -
			10 °C	40 °C	50 °C	100 °C	150 °C	200 °C	250 °C		
BD 035	ca. 35	250	0,038	0,044	0,046	0,059	0,075	0,096	0,123	T430SAPCPR	MW-EN14303-T5-ST(+)250-WS1-CL10
BD 040	ca. 40	250	0,036	0,040	0,042	0,052	0,065	0,081	0,100	T430SARCPR	
BD 050	ca. 50	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 060	ca. 60	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 070	ca. 70	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430SOPCPR	
BD 080	ca. 80	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430SOPCPR	
BD 090	ca. 90	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	MW-EN13162-T5-WS-AF25
BD 100	ca. 100	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	
Standard	EN ISO 29470	EN ISO 18097	EN 12667								EN 14303 / EN 13162

* recommended maximum service temperature for BD 090 in BD 100

NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./pallet	m²/pallet
1000 x 600 x **30**	8,40	252	189,00
1000 x 600 x **50**	6,00	200	120,00
1000 x 600 x **100**	3,00	100	60,00
1200 x 625 x **30**	10,50	252	189,00
1200 x 625 x **50**	7,50	150	112,50
1200 x 625 x **100**	3,75	75	56,25
2000 x 1200 x **30**	196,80	82	196,80
2000 x 1200 x **50**	124,80	52	124,80
2000 x 1200 x **100**	62,40	26	62,40

* Other dimensions on request. Note the minimum order quantities
Thickness available: 20-250 mm (depending on density)

** PU = packaging unit = 1 package of boards

BOARD

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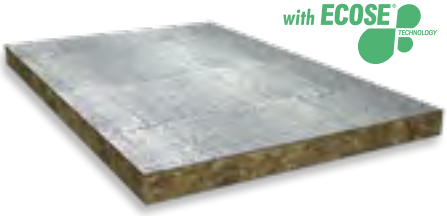
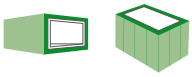
Thermo-teK BD 035-100 ALU



PRODUCT INFO



DESCRIPTION

Thermo-teK BD 035-100 ALU is a Rock Mineral Wool insulation board, bonded on **one side to a tear-resistant, glass mesh reinforced aluminium foil that acts as a water vapour barrier and ensures a closed-fibre environment (improved dust protection in the room and during installation).**

Knauf Insulation Thermo-teK BD 035-100 ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials. The insulation board has received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE® Technology binder used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

BENEFITS

- ✔ Tear-resistant, sturdy aluminium lamination
- ✔ Rigid, flat and stable form
- ✔ Protection against dust
- ✔ Protection against water vapour
- ✔ Nice visual appearance with sharp edges
- ✔ Possibility to have customised dimensions
- ✔ Optimal thermal, acoustic and mechanical performance for a broad range of applications
- ✔ ECOSE® Technology

CERTIFICATES

Valid for BD 060 and BD 080: EPD®

APPLICATION

- ✔ **Rectangular air ducts – outside insulation**
- ✔ **Technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- ✔ **A metal finishing layer is required to assure closed-fibre environment (protection against dust during installation).**
- ✔ **A water vapour barrier is required.**

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Service temperature aluminium facing	-	≤ 80	°C	–
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Water vapour diffusion equivalent air layer thickness	S_d	≥ 200	m	EN 12086
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Thermo-teK	Density ρ (kg/m³)	MST ST(+) (°C)	Thermal conductivity depending on temperature λ W/(mK)							DOP-No. -	Designation code -
			10 °C	40 °C	50 °C	100 °C	150 °C	200 °C	250 °C		
BD 035	ca. 35	250	0,038	0,044	0,046	0,059	0,075	0,096	0,123	T430SAPCPR	MW-EN14303-T5-ST(+)250-WS1-MV2-CL10
BD 040	ca. 40	250	0,036	0,040	0,042	0,052	0,065	0,081	0,100	T430SARCPR	
BD 050	ca. 50	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 060	ca. 60	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 070	ca. 70	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430S0PCPR	
BD 080	ca. 80	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430S0PCPR	
BD 090	ca. 90	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	MW-EN13162-T5-WS-AF25
BD 100	ca. 100	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	
Standard	EN ISO 29470	EN ISO 18097	EN 12667								EN 14303 / EN 13162

* recommended maximum service temperature for BD 090 in BD 100

NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./ pallet	m²/pallet
1000 x 600 x **50**	6,00	200	120,00
1200 x 625 x **50*** **	7,50	150	112,50
1000 x 600 x **60**	6,00	200	120,00
1000 x 600 x **100**	3,00	100	60,00
1200 x 625 x **100**	3,75	75	56,25

* Other dimensions on request. Note the minimum order quantities
Thickness available: 25-250 mm (depending on density)

** PU = packaging unit = 1 package of boards

*** Not available for BD 035 ALU

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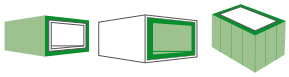
Thermo-teK BD 035-100 WBS

PRODUCT INFO



DESCRIPTION

Thermo-teK BD 035-100 WBS is a Rock Mineral Wool insulation board, **bonded on one side to a strong black glass woven fabric facing, which protects the working spaces from dust and assures an attractive black finish. Due to its characteristics, the board can be used when hygienic conditions are required.**

Knauf Insulation Thermo-teK BD 035-100 WBS is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials. The insulation board has received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE® Technology binder used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

BENEFITS

- Black glass woven fabric facing lamination
- Assuring hygienic conditions
- Protection against dust during installation
- Rigid, flat and stable form
- Nice visual appearance with sharp edges
- Possibility to have customised dimensions
- Optimal thermal, acoustic and mechanical performance for a broad range of applications
- ECOSE® Technology

CERTIFICATES

Valid for BD 060 and BD 080: EPD®

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **A strong quality black glass woven fabric facing is required**
- **Hygienic conditions need to be assured.**
- **Protection against dust during installation is needed.**

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Service temperature facing	-	≤ 150	°C	EN ISO 18097
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303/EN 13162
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Thermo-teK	Density ρ (kg/m³)	MST ST(+) (°C)	Thermal conductivity depending on temperature λ W/(mK)							DOP-No. -	Designation code -
			10 °C	40 °C	50 °C	100 °C	150 °C	200 °C	250 °C		
BD 035	ca. 35	250	0,038	0,044	0,046	0,059	0,075	0,096	0,123	T430SAPCPR	MW-EN14303-T5-ST(+)250-WS1-CL10
BD 040	ca. 40	250	0,036	0,040	0,042	0,052	0,065	0,081	0,100	T430SARCPR	
BD 050	ca. 50	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 060	ca. 60	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 070	ca. 70	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430SOPCPR	
BD 080	ca. 80	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430SOPCPR	
BD 090	ca. 90	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	MW-EN13162-T5-WS-AF25
BD 100	ca. 100	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	
Standard	EN ISO 29470	EN ISO 18097	EN 12667								EN 14303 / EN 13162

* recommended maximum service temperature for BD 090 in BD 100

NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

PACKAGING SPECIFICATIONS

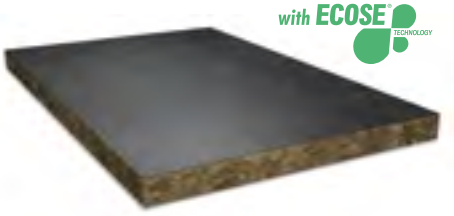
Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./ pallet	m²/pallet
1000 x 600 x **30*** **	8,40	252	189,00
1000 x 600 x **40*** **	7,20	240	144,00
1000 x 600 x **50*** **	6,00	200	120,00
1000 x 600 x **100**	3,00	100	60,00

* Other dimensions on request. Note the minimum order quantities
Thickness available: 25-250 mm (depending on density)

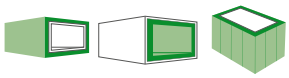
** PU = packaging unit = 1 package of boards

*** Not available for BD 035 WBS

Thermo-teK BD 035-100 VBS



PRODUCT INFO



DESCRIPTION

Knauf Insulation Thermo-teK BD 035-100 VBS is a Rock Mineral Wool insulation board, bonded on **one side to a black glass veil facing, which protects the working spaces from dust and assures an attractive black finish.**

Knauf Insulation Thermo-teK BD 035-100 VBS is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials. The insulation board has received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE® Technology binder used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

BENEFITS

- Black glass veil facing lamination
- Protection against dust during installation
- Rigid, flat and stable form
- Nice visual appearance with sharp edges
- Possibility to have customised dimensions
- Optimal thermal, acoustic and mechanical performance for a broad range of applications
- ECOSE® Technology

CERTIFICATES

Valid for BD 060 and BD 080: EPD®

APPLICATION

- **Rectangular air ducts – outside insulation**
- **Technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- **A black glass veil facing is required (attractive black finish)**
- **Protection against dust during installation is needed.**

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Service temperature facing	-	≤ 150	°C	–
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303/EN 13162
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Thermo-teK	Density ρ (kg/m³)	MST ST(+) (°C)	Thermal conductivity depending on temperature λ W/(mK)							DOP-No. -	Designation code -
			10 °C	40 °C	50 °C	100 °C	150 °C	200 °C	250 °C		
BD 035	ca. 35	250	0,038	0,044	0,046	0,059	0,075	0,096	0,123	T430SAPCPR	MW-EN14303-T5-ST(+)250-WS1-CL10
BD 040	ca. 40	250	0,036	0,040	0,042	0,052	0,065	0,081	0,100	T430SARCPR	
BD 050	ca. 50	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 060	ca. 60	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 070	ca. 70	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430SOPCPR	
BD 080	ca. 80	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430SOPCPR	
BD 090	ca. 90	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	MW-EN13162-T5-WS-AF25
BD 100	ca. 100	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	
Standard	EN ISO 29470	EN ISO 18097	EN 12667								EN 14303 / EN 13162

* recommended maximum service temperature for BD 090 in BD 100

NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./ pallet	m²/pallet
1000 x 600 x **30**	8,40	252	189,00
1000 x 600 x **40**	7,20	240	144,00
1000 x 600 x **50**	6,00	200	120,00
1000 x 600 x **100**	3,00	100	60,00

* Other dimensions on request. Note the minimum order quantities. Thickness available: 25-250 mm (depending on density)

** PU = packaging unit = 1 package of boards

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Thermo-teK BD 035-100 VWS

PRODUCT INFO

DESCRIPTION

Knauf Insulation Thermo-teK BD 035-100 VWS is a Rock Mineral Wool insulation board with formaldehyde-free binder, bonded on **one side to a white glass veil facing, which protects the working spaces from dust and assures attractive natural colour finishing.**

Knauf Insulation Thermo-teK BD 035-100 VWS is produced with **ECOSE® Technology**, a patented binder system, entirely based on renewable raw materials. The insulation board has received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE® Technology binder used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

BENEFITS

- ✔ Natural colour glass veil facing
- ✔ Protection against dust during installation
- ✔ Rigid, flat form, keeping the stable form
- ✔ Nice visual appearance with sharp edges
- ✔ Possibility to have customised dimensions
- ✔ Optimal thermal, acoustic and mechanical performance for broad range of applications
- ✔ ECOSE® Technology

CERTIFICATES

Valid for BD 060 and BD 080: EPD®

APPLICATION

- ✔ **Rectangular air ducts – outside insulation**
- ✔ **Technical & acoustic rooms**

The product is recommended for thermal, fire and sound insulation of defined Thermo-teK applications within technical insulation where:

- ✔ **A high-quality white glass veil facing is required (attractive natural finishing)**
- ✔ **Protection against dust during installation is needed.**

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Service temperature facing	-	≤ 150	°C	EN ISO 18097
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Water vapour diffusion resistance	μ	1	–	EN 14303/EN 13162
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Thermo-teK	Density ρ (kg/m³)	MST ST(+) (°C)	Thermal conductivity depending on temperature λ W/(mK)							DOP-No. -	Designation code -
			10 °C	40 °C	50 °C	100 °C	150 °C	200 °C	250 °C		
BD 035	ca. 35	250	0,038	0,044	0,046	0,059	0,075	0,096	0,123	T430SAPCPR	MW-EN14303-T5-ST(+)250-WS1-CL10
BD 040	ca. 40	250	0,036	0,040	0,042	0,052	0,065	0,081	0,100	T430SARCPR	
BD 050	ca. 50	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 060	ca. 60	250	0,035	0,039	0,041	0,048	0,058	0,071	0,088	T430SLPCPR	
BD 070	ca. 70	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430SOPCPR	
BD 080	ca. 80	250	0,034	0,038	0,039	0,046	0,056	0,065	0,077	T430SOPCPR	
BD 090	ca. 90	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	MW-EN13162-T5-WS-AF25
BD 100	ca. 100	250*	0,035	0,038	–	–	–	–	–	R430SLPCPR	
Standard	EN ISO 29470	EN ISO 18097	EN 12667								EN 14303 / EN 13162

* recommended maximum service temperature for BD 090 in BD 100

NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./ pallet	m²/pallet
1000 x 600 x **50**	6,00	200	120,00
1200 x 625 x **50*** **	7,50	150	112,50
1000 x 600 x **60**	6,00	200	120,00
1000 x 600 x **100**	3,00	100	60,00
1200 x 625 x **100**	3,75	75	56,25

* Other dimensions on request. Note the minimum order quantities Thickness available: 25-250 mm (depending on density)

** PU = packaging unit = 1 package of boards

*** Not available for BD 035 ALU

SOUND ABSORBENT BOARD

Sound-teK BD 804-808 WBD

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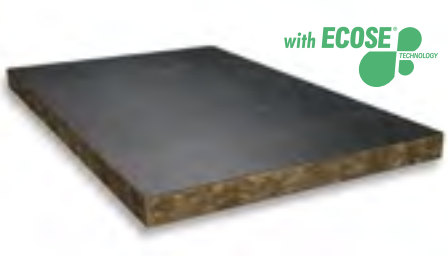
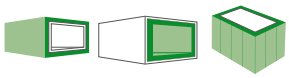
THERMO-TEK



PRODUCT INFO



DESCRIPTION

Sound-teK BD 804-808 WBD is a Rock Mineral Wool insulating board which is **laminated with black glass wooven cloth facing on both sides**. It is non-combustible, water repellent, sound and heat insulating as well as resistant to deformation and ageing.

Knauf Insulation Sound-teK BD 804-808 WBD is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials. The insulation board has received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE binder technology used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

APPLICATION

✔ **Sound absorbers**

The product is recommended for thermal and sound insulation of defined Thermo-teK applications within technical insulation where:

✔ **Combined thermal and sound insulation is required**

BENEFITS

- ✔ Optimised sound insulation
- ✔ Very good heat insulation
- ✔ Non combustible
- ✔ Hydrophob
- ✔ Inherently stable
- ✔ Age resistant
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/R4305JPCPR for BD 804
www.dopki.com/R4305LPCPR for BD 805,806
www.dopki.com/R4305MPCPR for BD 807, 808

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications					Unit	Standard
Reaction to fire	-	A1					–	EN 13501-1
Density	ρ	40	50	60	70	80	kg/m³	EN ISO 29470
Thermal conductivity depending on temperature (10 °C)	λ	0,037	0,035	0,035	0,034	0,034	W/(m·K)	EN 12667
Longitudinal air flow resistance	r	≥ 5	≥ 10	≥ 15	≥ 15	≥ 15	kPa s/m²	EN 29053
Maximum service temperature	ST(+)	150 (recommended)					°C	–
Service temperature facing	-	≤150					°C	EN ISO 18097
Water soluble chloride ions (AS quality)	-	≤ 10					ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0					kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1					–	EN 13162
Melting point of fibres	ϑ	≥ 1000					°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances					–	–
Designation code	-	MW–EN13162–T5–MU1–WS–AF5	MW–EN13162–T5–MU1–WS–AF10	MW–EN13162–T5–MU1–WS–AF15			–	EN 13162

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com
NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

Sound absorption coefficient	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000Hz	aw
Sound-teK 804 WBD 50 mm*	0.25	0.70	0.95	0.95	0.95		
Sound-teK 804 WBD 100 mm*	0.90	1.00	1.00	1.00	0.95		
Sound-teK 804 WBD 200 mm*	1.00	1.00	1.00	1.00	0.95		
Sound-teK BD 805 WBD 50 mm	0.25	0.70	1.00	1.00	1.00	1.00	1.0
Sound-teK BD 805 WBD 100 mm*	0.70	1.00	1.00	1.00	1.00	0.95	1.0
Sound-teK BD 805 WBD 200 mm*	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Sound-teK BD 808 WBD 25 mm*	0.07	0.25	0.59	0.80	0.90	/	
Sound-teK BD 808 WBD 40 mm*	0.22	0.60	0.91	0.96	0.93	/	
Sound-teK BD 808 WBD 50 mm	0.25	0.70	1.00	1.00	1.00	/	

* Values obtained by a laboratory test performed according to ISO 354.

Products available in thickness 60 up to 255 mm.
Standard formats 1000 x 600 mm.
Specific formats on request.

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Sound-teK BD 804-808 VWD

PRODUCT INFO

DESCRIPTION

Sound-teK BD 804-808 VWD is a Rock Mineral Wool insulating board which is **laminated with white glass wooven cloth facing on both sides**. It is non-combustible, water repellent, sound and heat insulating as well as resistant to deformation and ageing.

Knauf Insulation Sound-teK BD 804-808 VWD is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials. The insulation board has received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE binder technology used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

APPLICATION

✔ **Sound absorbers**

The product is recommended for thermal and sound insulation of defined Thermo-teK applications within technical insulation where:

✔ **Combined thermal and sound insulation is required**

BENEFITS

- ✔ Optimised sound insulation
- ✔ Very good heat insulation
- ✔ Non combustible
- ✔ Hydrophob
- ✔ Inherently stable
- ✔ Age resistant
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/R4305JPCPR for BD 804
www.dopki.com/R4305LPCPR for BD 805,806
www.dopki.com/R4305MPCPR for BD 807, 808

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications					Unit	Standard
Reaction to fire	–	A1					–	EN 13501-1
Density	ρ	40	50	60	70	80	kg/m³	EN ISO 29470
Thermal conductivity depending on temperature (10 °C)	λ	0,037	0,035	0,035	0,034	0,034	W/(m·K)	EN 12667
Longitudinal air flow resistance	r	≥ 5	≥ 10	≥ 15	≥ 15	≥ 15	kPa s/m²	EN 29053
Maximum service temperature	ST(+)	250 (recommended)					°C	–
Service temperature facing	–	≤150					°C	EN ISO 18097
Water soluble chloride ions (AS quality)	–	≤ 10					ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0					kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1					–	EN 13162
Melting point of fibres	ϑ	≥ 1000					°C	DIN 4102-17
Specific heat capacity	–	1030					J(kg/K)	EN ISO 10456
Silicone-free fibres	–	No emissions of lacquering disturbing substances					–	–
Designation code	–	MW–EN13162–T5–MU1–WS–AF5	MW–EN13162–T5–MU1–WS–AF15	MW–EN13162–T5–MU1–WS–AF10			–	EN 13162

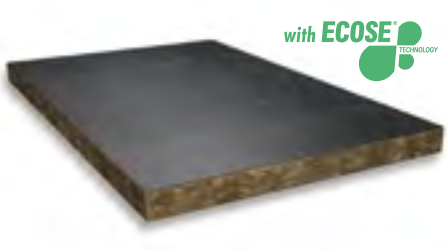
The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com
NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

Sound absorption coefficient	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000Hz	aw
Sound-teK BD 804 VWD 50 mm*	0.20	0.65	0.90	0.95	0.95		
Sound-teK BD 804 VWD 100 mm*	0.75	1.00	1.00	0.95	0.95		
Sound-teK BD 804 VWD 200 mm*	1.00	1.00	1.00	0.95	0.95		
Sound-teK BD 805 VWD 50 mm*	0.20	0.60	0.95	1.00	1.00	0.95	0.9
Sound-teK BD 805 VWD 100 mm*	0.60	1.00	1.00	1.00	1.00	0.95	1.0
Sound-teK BD 805 VWD 200 mm*	0.90	1.00	1.00	1.00	1.00	0.95	1.0
Sound-teK BD 808 VWD 25 mm*	0.07	0.25	0.59	0.80	0.90	/	
Sound-teK BD 808 VWD 40 mm*	0.22	0.60	0.91	0.96	0.93	/	
Sound-teK BD 808 VWD 50 mm*	0.25	0.70	1.00	1.00	1.00	/	

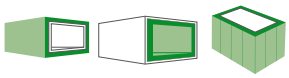
* Values obtained by a laboratory test performed according to ISO 354.

Products available in thickness 60 up to 255 mm.
Standard formats 1000 x 600 mm.
Specific formats on request.

Sound-teK BD 804-808 VBD



PRODUCT INFO



DESCRIPTION

Sound-teK BD 804-808 VBD is a Rock Mineral Wool insulating board which is **laminated with black glass veil facing on both sides**. It is non-combustible, water repellent, sound and heat insulating as well as resistant to deformation and ageing.

Knauf Insulation Sound-teK BD 804-808 VBD is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials. The insulation board has received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE binder technology used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

APPLICATION

✔ **Sound absorbers**

The product is recommended for thermal and sound insulation of defined Thermo-teK applications within technical insulation where:

✔ **Combined thermal and sound insulation is required.**

BENEFITS

- ✔ Optimised sound insulation
- ✔ Very good heat insulation
- ✔ Non combustible
- ✔ Hydrophob
- ✔ Inherently stable
- ✔ Age resistant
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/R4305JPCPR for BD 804
www.dopki.com/R4305LPCPR for BD 805,806
www.dopki.com/R4305MPCPR for BD 807, 808

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications					Unit	Standard
Reaction to fire	–	A1					–	EN 13501-1
Density	ρ	40	50	60	70	80	kg/m³	EN ISO 29470
Thermal conductivity depending on temperature (10 °C)	λ	0,037	0,035	0,035	0,034	0,034	W/(m·K)	EN 12667
Longitudinal air flow resistance	r	≥ 5	≥ 10	≥ 15	≥ 15	≥ 15	kPa s/m²	EN 29053
Maximum service temperature	ST(+)	150 (recommended)					°C	–
Service temperature facing	–	≤150					°C	EN ISO 18097
Water soluble chloride ions (AS quality)	–	≤ 10					ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0					kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1					–	EN 13162
Melting point of fibres	ϑ	≥ 1000					°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances					–	–
Designation code	–	MW–EN13162–T5–MU1–WS–AF10	MW–EN13162–T5–MU1–WS–AF10				–	EN 13162

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com
NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

Sound absorption coefficient	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000Hz	aw
Sound-teK BD 804 VBD 50 mm*	0.20	0.65	0.90	0.95	0.95		
Sound-teK BD 804 VBD 100 mm*	0.75	1.00	1.00	0.95	0.95		
Sound-teK BD 804 VBD 200 mm*	1.00	1.00	1.00	0.95	0.95		
Sound-teK BD 805 VBD 50 mm*	0.20	0.60	0.95	1.00	1.00	0.95	0.9
Sound-teK BD 805 VBD 100 mm*	0.60	1.00	1.00	1.00	1.00	0.95	1.0
Sound-teK BD 805 VBD 200 mm*	0.90	1.00	1.00	1.00	1.00	0.95	1.0
Sound-teK BD 808 VBD 25 mm*	0.07	0.25	0.59	0.80	0.90	/	
Sound-teK BD 808 VBD 40 mm*	0.22	0.60	0.91	0.96	0.93	/	
Sound-teK BD 808 VBD 50 mm*	0.25	0.70	1.00	1.00	1.00	/	

* Values obtained by a laboratory test performed according to ISO 354.

Products available in thickness 60 up to 255 mm.
Standard formats 1000 x 600 mm.
Specific formats on request.

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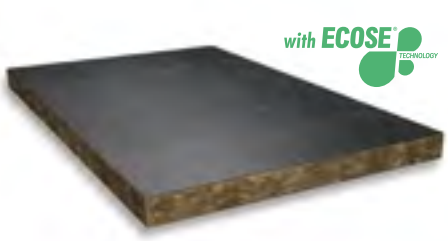
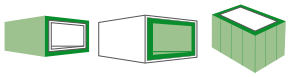
Sound-teK BD 804-808 WBS



PRODUCT INFO



DESCRIPTION

Sound-teK BD 804-808 WBS is a Rock Mineral Wool insulating board **which is laminated with black glass wooven cloth facing on one side. It is non-combustible, water repellent, sound and heat insulating as well as resistant to deformation and ageing.**

Knauf Insulation Sound-teK BD 804-808 WBS is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials. The insulation boards have received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE binder technology used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

APPLICATION

✔ **Sound absorbers**

The product is recommended for thermal and sound insulation of defined Thermo-teK applications within technical insulation where:

✔ **Combined thermal and sound insulation is required.**

BENEFITS

- ✔ Optimised sound insulation
- ✔ Very good heat insulation
- ✔ Non combustible
- ✔ Hydrophob
- ✔ Inherently stable
- ✔ Age resistant
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/R4305JPCPR for BD 804
www.dopki.com/R4305LPCPR for BD 805,806
www.dopki.com/R4305MPCPR for BD 807, 808

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications					Unit	Standard
Reaction to fire	–	A1					–	EN 13501-1
Density	ρ	40	50	60	70	80	kg/m³	EN ISO 29470
Thermal conductivity depending on temperature (10 °C)	λ	0,037	0,035	0,035	0,034	0,034	W/(m·K)	EN 12667
Longitudinal air flow resistance	r	≥ 5	≥ 10	≥ 15	≥ 15	≥ 15	kPa s/m²	EN 29053
Maximum service temperature	ST(+)	150 (recommended)					°C	–
Service temperature facing	–	≤150					°C	EN ISO 18097
Water soluble chloride ions (AS quality)	–	≤ 10					ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0					kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1					–	EN 13162
Melting point of fibres	ϑ	≥ 1000					°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances					–	–
Designation code	–	MW–EN13162–T5–MU1–WS–AF5	MW–EN13162–T5–MU1–WS–AF10	MW–EN13162–T5–MU1–WS–AF15			–	EN 13162

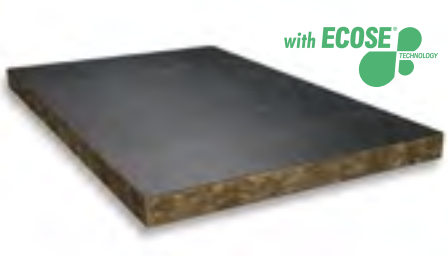
The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com
NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

Sound absorption coefficient	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000Hz	aw
Sound-teK 804 WBS 50 mm*	0.25	0.70	0.95	0.95	0.95		
Sound-teK 804 WBS 100 mm*	0.90	1.00	1.00	1.00	0.95		
Sound-teK 804 WBS 200 mm*	1.00	1.00	1.00	1.00	0.95		
Sound-teK BD 805 WBS 50 mm	0.25	0.70	1.00	1.00	1.00	1.00	1.0
Sound-teK BD 805 WBS 100 mm*	0.70	1.00	1.00	1.00	1.00	0.95	1.0
Sound-teK BD 805 WBS 200 mm*	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Sound-teK BD 808 WBS 25 mm*	0.07	0.25	0.59	0.80	0.90	/	
Sound-teK BD 808 WBS 40 mm*	0.22	0.60	0.91	0.96	0.93	/	
Sound-teK BD 808 WBS 50 mm	0.25	0.70	1.00	1.00	1.00	/	

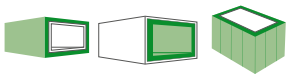
* Values obtained by a laboratory test performed according to ISO 354.

Products available in thickness 60 up to 255 mm.
Standard formats 1000 x 600 mm.
Specific formats on request.

Sound-teK BD 804-808 VBS



PRODUCT INFO



DESCRIPTION

Sound-teK BD 804-808 VBS is a Rock Mineral Wool insulating board **which is laminated with black glass veil facing on one side. It is non-combustible, water repellent, sound and heat insulating as well as resistant to deformation and ageing.**

Knauf Insulation Sound-teK BD 804-808 VBS is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials. The insulation board has received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the ECOSE binder technology used in their manufacturing process. Its use ensures a better room atmosphere while also making handling considerably more comfortable.

APPLICATION

✔ **Sound absorbers**

The product is recommended for thermal and sound insulation of defined Thermo-teK applications within technical insulation where:

✔ **Combined thermal and sound insulation is required.**

BENEFITS

- ✔ Optimised sound insulation
- ✔ Very good heat insulation
- ✔ Non combustible
- ✔ Hydrophob
- ✔ Inherently stable
- ✔ Age resistant
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/R4305JPCPR for BD 804
www.dopki.com/R4305LPCPR for BD 805,806
www.dopki.com/R4305MPCPR for BD 807, 808

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications					Unit	Standard
Reaction to fire	–	A1					–	EN 13501-1
Density	ρ	40	50	60	70	80	kg/m³	EN ISO 29470
Thermal conductivity depending on temperature (10 °C)	λ	0,037	0,035	0,035	0,034	0,034	W/(m·K)	EN 12667
Longitudinal air flow resistance	r	≥ 5	≥ 10	≥ 15	≥ 15	≥ 15	kPa s/m²	EN 29053
Maximum service temperature	ST(+)	150 (recommended)					°C	–
Service temperature facing	–	≤150					°C	EN ISO 18097
Water soluble chloride ions (AS quality)	–	≤ 10					ppm	EN ISO 12624
Density	W_p	ca. 50					kg/m³	EN ISO 29470
Longitudinal air flow resistance	μ	≥ 10					kPa s/m²	EN 29053
Water absorption	ϑ	≤ 1,0					kg/m²	EN ISO 29767
Water vapour diffusion resistance	–	1					–	EN 13162
Melting point of fibres	–	≥ 1000					°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances					–	–
Designation code	–	MW–EN13162–T5–MU1–WS–AF5	MW–EN13162–T5–MU1–WS–AF10	MW–EN13162–T5–MU1–WS–AF15			–	EN 13162

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com
NOTE: Please note our information regarding the sound absorbing effect of Mineral Wool boards. See page 116.

Sound absorption coefficient	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000Hz	aw
Sound-teK BD 804 VBS 50 mm*	0.20	0.65	0.90	0.95	0.95		
Sound-teK BD 804 VBS 100 mm*	0.75	1.00	1.00	0.95	0.95		
Sound-teK BD 804 VBS 200 mm*	1.00	1.00	1.00	0.95	0.95		
Sound-teK BD 805 VBS 50 mm*	0.20	0.60	0.95	1.00	1.00	0.95	0.9
Sound-teK BD 805 VBS 100 mm*	0.60	1.00	1.00	1.00	1.00	0.95	1.0
Sound-teK BD 805 VBS 200 mm*	0.90	1.00	1.00	1.00	1.00	0.95	1.0
Sound-teK BD 808 VBS 25 mm*	0.07	0.25	0.59	0.80	0.90	/	
Sound-teK BD 808 VBS 40 mm*	0.22	0.60	0.91	0.96	0.93	/	
Sound-teK BD 808 VBS 50 mm*	0.25	0.70	1.00	1.00	1.00	/	

* Values obtained by a laboratory test performed according to ISO 354.

Products available in thickness 60 up to 255 mm.
Standard formats 1000 x 600 mm.
Specific formats on request.

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Sound-teK FM 140 ALU

PRODUCT INFO

DESCRIPTION

Sound-teK FM 140 ALU is a non-combustible Rock Mineral Wool felt produced without organic substances. It's aluminium faced and can be used for sound insulation. The product will be used as a sealing and should be covered with a plaster or gypsum to ensure that is fixed.

APPLICATION

- ✔ **Sound absorbers for rectangular and circular air ducts**

The product is recommended for sound insulation of defined Thermo-teK applications within technical insulation where:

- ✔ **Acoustic decoupling is required.**
- ✔ **A filling-in the gaps material between wall/ ceiling and rectangular/circular ducts is required**
- ✔ **It's necessary to close the rectangular and circular ducts openings**

BENEFITS

- ✔ Very flexible
- ✔ Easy to cut
- ✔ Optimised sound insulation
- ✔ No organic substances
- ✔ Non combustible
- ✔ Hydrophob

DECLARATION OF PERFORMANCE

www.dopki.com/T4309ASCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Density	ρ	ca. 140	kg/m³	EN ISO 29470
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m2/roll	Pcs./ pallet	m²/pallet
1100 x 300 x **13**	13,86	18	249,48

* Other dimensions and/or densities on request.

SYSTEM

Thermo-teK PS Cld SYSTEM

NEW

THERMO-TEK

DESCRIPTION

The Knauf Insulation T**hermo-teK PS Cld SYSTEM** provides insulation of cold pipes (means the service temperature is below ambient temperature) in building service systems. It is suited for use on drinking and cooling water lines, regardless whether made from stainless steel, steel, copper or plastic. The system is also suitable for systems with intermittent temperatures. Being non-combustible, the Thermo-teK PS Cld SYSTEM is designed to reduce energy losses and protect the pipes from condensation and fire.

The system is composed of core Knauf Insulation Thermo-teK PS Cld ALS pipe sections, which are supported by additional products: pipe hangers Thermo-teK PH, lamella mats Thermo-teK LM Cld ALS and sealing tapes Thermo-teK Tape Cld/ Thermo-teK Seal Cld.

BENEFITS

- Fire safe due to non-combustible Rock Mineral Wool $A2_L$-s1, d0
- Extra tough and water vapour tight aluminium facing with glass scrim reinforcing and therefore highly protective regarding possible damage
- Specially designed closure tape for professional vapour tight sealing.
- Application range from 0 °C to + 250 °C
- Simple and fast processing for cold and warm applications
- Tested system with all necessary system components
- Low embedded carbon
- ECOSE® Technology

SYSTEM INFO

INSTALLATION VIDEO

SAFE IS COOL

COLD INSULATION 2 in 1 FIRE PROTECTION

CORE SYSTEM PRODUCT

Thermo-teK PS Cld ALS
(technical data page 46)

with ECOSE TECHNOLOGY

COMPLEMENTARY SYSTEM PRODUCTS

Thermo-teK PH/PH INS
(technical data page 24)

with ECOSE TECHNOLOGY

Thermo-teK LM Cld ALS
(technical data page 48)

with ECOSE TECHNOLOGY

Thermo-teK Seal Cld
(technical data page 49)

Spatula - tool

Thermo-teK Tape Cld
(technical data page 49)

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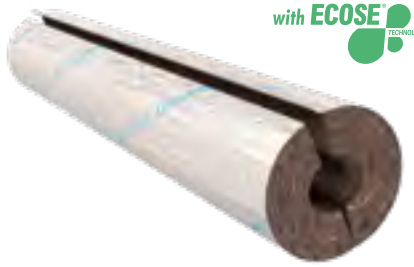
THERMO-TEK

Thermo-teK PS Cld ALS



with ECOSE TECHNOLOGY

PRODUCT INFO

DESCRIPTION

Thermo-teK PS Cld ALS is a circular-wound Rock Mineral Wool pipe section (preformed pipe diameter up to 200 mm), **laminated** with **extra strong fibre glass** reinforced, tear-resistant aluminium foil, **which acts as a water vapour barrier** and provides extra mechanical protection. The 1200 mm long pipe section is **slit on one side** for easier installation. A self-adhesive seal along the longitudinal slit eases the mounting process before a final sealing with extra strong Thermo-teK Tape Cld.
Product provides **premium thermal conductivity, high compressive strength, excellent fire resistance and minimum product tolerances** of the inner and outer diameters thanks to the use of innovative production technologies.
The Knauf Insulation Thermo-teK PS Cld ALS pipe sections are suitable for insulation of steel, stainless steel, copper and plastic pipes in building services systems. Using reinforcing extra tough and water vapour tight alu-facing with glass scrim the Thermo-teK PS Cld ALS is particularly suitable for cold insulation in the Thermo-teK Cld SYSTEM.

Knauf Insulation Thermo-teK PS Cld ALS is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

BENEFITS

- Non combustible Rock Mineral Wool $A2_L$-s1, d0
- Extra tough and water vapour tight alu-facing with glass scrim reinforcing and therefore highly protective regarding possible damage
- Application range from 0 °C to + 250 °C
- Simple and fast processing
- Time and cost savings
- Space saving
- ECOSE® Technology

APPLICATION

- **Pipe lines.**

The product is recommended for thermal insulation of steel, stainless steel, copper and plastic pipes in building services systems: warm/hot water lines, lines for chilled water and pipework with alternating temperatures.

- **Drinking water pipes**
- **Cooling water pipes**
- **Alternating temperature systems**
- **Drainage lines (rain and snow)**

DECLARATION OF PERFORMANCE

www.dopki.com/T4305NPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications				Unit	Standard
Reaction to fire*	–	$A2_L$-s1, d0 OD≤ 300 mm, A2-s1, d0 – OD > 300 mm				–	EN 13501-1
Thermal conductivity depending on mean temperature	ϑ	10	50	100	150	°C	EN ISO 8497
	λ	0,033	0,037	0,044	0,052	W/(m·K)	
Maximum service temperature	ST(+)	250				°C	EN ISO 18096
Service temperature aluminium facing	–	≤ 80				°C	–
Water soluble chloride ions (AS quality)	–	≤ 10				ppm	EN ISO 12624
Density	ρ	ca. 100-120				kg/m^3	EN ISO 18098
Water absorption	W_p	≤ 1,0				kg/m^2	EN ISO 12623
Water vapour diffusion equivalent air layer thickness	s_d	≥ 1500				m	EN ISO 12629
Silicone-free fibres**	–	No emissions of lacquering disturbing substances				–	–
Melting point of fibres	ϑ	≥ 1000				°C	DIN 4102-17
Specific heat capacity	C_p	1030				J/(kgK)	EN ISO 10456
Designation code	–	MW-EN14303-T8-ST(+)250-WS1-MV2-CL10 (OD < 150 mm) MW-EN14303-T9-ST(+)250-WS1-MV2-CL10 (OD ≥ 150 mm)				–	EN 14303

* Depending on external diameter
** Fullfills the criteria of Volkswagen standard 3.10.7 and is free from substances which prevent paint wetting.
The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 20 mm		Thickness 30 mm		Thickness 40 mm		Thickness 50 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
15	-	-	979,20	40,80							15
18	-	-	892,80	37,20			316,80	13,20			18
22	15	1/2	777,60	32,40			259,20	14,40			22
28	20	3/4	633,60	26,40	432,00	18,00	259,20	14,40			28
35	25	1	540,00	30,00	374,40	15,60	194,40	10,80			35
42	32	1 1/4	388,80	21,60			194,40	10,80	129,60	7,20	42
48	40	1 1/2	345,60	19,20					129,60	7,20	48
54	-	-			216,00	12,00			108,00	6,00	54
60	50	2			172,80	9,60					60
64	-	-			194,40	10,80					64
76	65	2 1/2			172,80	9,60					76
89	80	3			151,20	8,40					89
102	-	-			129,60	7,20					102
108	-	-			86,40	4,80					108
114	100	4			86,40	4,80					114
140	125	5			86,40	4,80					140
159	-	-			79,20	1,20					159
169	150	6					55,20	1,20			168
219	200	8					38,40	1,20			219
273	250	10					21,60	1,20			273
324	300	12					16,80	1,20			324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 60 mm		Thickness 70 mm		Thickness 80 mm		Thickness 100 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
15	-	-									15
18	-	-									18
22	15	1/2									22
28	20	3/4									28
35	25	1									35
42	32	1 1/4									42
48	40	1 1/2									48
54	-	-	86,40	4,80							54
60	50	2	86,40	4,80							60
64	-	-	86,40	4,80							64
76	65	2 1/2	86,40	4,80	72,00	1,20	60,00	1,20			76
89	80	3	72,00	1,20					38,40	1,20	89
102	-	-	62,40	1,20			48,00	1,20			102
108	-	-	60,00	1,20					33,60	1,20	108
114	100	4	60,00	1,20					31,20	1,20	114
140	125	5			43,20	1,20			28,80	1,20	140
159	-	-			38,40	1,20			24,00	1,20	159
169	150	6			33,60	1,20			21,60	1,20	168
219	200	8			24,00	1,20			16,80	1,20	219
273	250	10					14,40	1,20			273
324	300	12					12,00	1,20			324

Other dimensions available on request.

Thermo-teK PH/PH INS

with ECOSE TECHNOLOGY

DESCRIPTION

Thermo-teK PH Cld pipe support is a pipe bracket to avoid thermal bridges. It consist of the metal hanger and of a robust, pressure resistant Rock Mineral Wool core serving for a load transfer. The core is, like Thermo-teK PS Cld ALS, laminated with a extra strong fibre glass reinforced, tear-resistant aluminium foil and a self adhesive overlapping seal to close the radial opening.

More information about the product available on page 24.

PRODUCT INFO

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THERMO-TEK

Thermo-teK LM Cld ALS

with ECOSE TECHNOLOGY

PRODUCT INFO

DESCRIPTION

The Knauf Insulation lamella mat Thermo-teK LM Cld ALS is a high compression resistant Rock Mineral Wool mat, consisting of individual mineral wool strips (lamellas) that are bonded on one side to an **extra strong fibre glass reinforced, tear-resistant aluminium foil**, which acts as a water vapour barrier and provides extra mechanical protection.
The Thermo-teK LM Cld ALS lamella mat is flexible and robust and is therefore very easy to use and can be perfectly adapted for installations such as valves, pumps, flanges, tanks and other large systems.

Knauf Insulation Thermo-teK LM Cld ALUS is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.
The product is recommended for thermal insulation of warm/hot water lines as well as for chilled water pipes.

BENEFITS

- Non combustible Rock Mineral Wool A1
- Extra tough and water vapour tight alu-facing with glass scrim reinforcing and therefore highly protective regarding possible damage
- Application range from 0 °C to + 250 °C
- Simple and fast processing
- Time and cost savings
- Space savings
- ECOSE® Technology

APPLICATION

- **Pipe lines.**
- **Rectangular and circular air ducts – cooling / air conditioning and heating, external insulation**

The product is recommended for thermal insulation of steel, stainless steel, copper and plastic pipes in building services systems: warm/hot water lines, lines for chilled water and pipework with alternating temperatures.

- **Drinking water pipes**
- **Cooling water pipes**
- **Alternating temperature systems**
- **Drainage lines (rain and snow)**

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications						Unit	Standard
Reaction to fire	–	A1						–	EN 13501-1
Thermal conductivity depending on temperature (10 °C)	ϑ	40	50	100	150	200	250	W/(m·K)	EN ISO 29470
	λ	0,042	0,044	0,054	0,067	0,083	0,104		EN 12667
Maximum service temperature	ST(+)	250						°C	–
Service temperature aluminium facing	–	≤ 80						°C	–
Density	ρ	ca. 40						kg/m³	EN ISO 29470
Water soluble chloride ions (AS quality)	–	≤ 10						ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0						kg/m²	EN ISO 29767
Melting point of fibres	ϑ	≥ 1000						°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances						–	–
Specific heat capacity	C_p	1030						J/(kgK)	EN ISO 10456
Designation code	–	MW-EN14303-T4-ST(+)250-WS1-MV2-CL10						–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	m²/pallet
8000 x 500 x **30**	8,00	120,00
6000 x 500 x **40**	6,00	90,00
5000 x 500 x **50**	5,00	75,00

* Also available in 1,000 mm. Other dimension variants on request.
** PU = packaging unit (PU = 2 rolls with width 500 mm)
Loading unit: 1 pallet

Thermo-teK Tape Cld

DESCRIPTION
Thermo-teK Tape Cld is a highly tear-resistant, glass fiber mesh reinforced aluminum adhesive tape that securely seals all joints and connections in the Thermo-teK PS Cld SYSTEM. It comes with a high performance pressure sensitive adhesive which is designed for perfect sealing of the joints

PRODUCT INFO

PACKAGING SPECIFICATIONS

Width (mm)	Length (m)	Roll/PU
75	50	16
100	50	12

Thermo-teK Seal Cld

DESCRIPTION
The flexible sealant tape Thermo-teK Seal Cld is used at penetration points of the aluminium sheathing such as pipe suspensions, controlor measuring equipment. It is water-tight and meant to preserve the system's adhesive strength even at low temperatures.

PRODUCT INFO

PACKAGING SPECIFICATIONS

Width (mm)	Length (m)	Roll/PU
50	25	1

Spatula

DESCRIPTION
Indispensable tool for easier application of tapes. Ask your sales contact for more information.

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WIRED MAT

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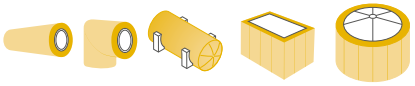
Power-teK® WM 640/660/680 GGN

PRODUCT INFO

VIDEO



DESCRIPTION

Power-teK® WM 640/660/680 GGN is a Rock Mineral Wool mat that is supplied **with a galvanised-steel wire mesh and galvanised-steel stitching wire on one side (GGN)**, with max service temperature from 640 to 680°C, depending on density.

Knauf Insulation Power-teK® WM 640/660/680 GGN is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **A high service temperature is required**
- **Flexible insulation is needed.**

BENEFITS

- Excellent maximum service temperature
- Strapex band as a carrying aid (can be transported with or without packaging)
- Overlapping galvanised-steel wire mesh on both sides (> 50 mm)
- Strong outer packaging with perforated packaging film (easy to open)
- Flexible and easy to bend
- One product for different sizes and shapes
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR for WM 640
www.dopki.com/T4305FPCPR for WM 660
www.dopki.com/T4305GPCPR for WM 680

CERTIFICATES

Valid for WM 660 GGN:

EPD®

Valid only for WM 640, 660:

Valid only for WM 640:

ASTM C592-TYPE II

Valid only for WM 660, 680:

ASTM C592-TYPE III

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	from 640 to 680 °C (see table below)	°C	EN ISO 18097
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature										Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))										r (kPa s/m²)	–
			50	100	200	300	400	500	600	640	660	680		
WM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	-	-	≥ 40	MW-EN14303-T2-ST(+)640-WS1-CL10
WM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	-	0,210	-	≥ 50	MW-EN14303-T2-ST(+)660-WS1-CL10
WM 680	ca.120	680	0,040	0,047	0,062	0,082	0,107	0,140	0,173	-	-	0,200	≥ 65	MW-EN14303-T2-ST(+)680-WS1-CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667										EN 29053	EN 14303

PACKAGING SPECIFICATIONS

Length x Width x **Thickness** (mm)	m²/roll	m²/PU**	m²/pallet
6000 x 500* x **30**	3,00	6,00	126,00
5000 x 500* x **40**	2,50	5,00	105,00
4000 x 500* x **50**	2,00	4,00	84,00
3000 x 500* x **60**	1,50	3,00	63,00
2500 x 500* x **70**	1,25	2,50	52,50
2500 x 500* x **80**	1,25	2,50	52,50
2000 x 500* x **90**	1,00	2,00	42,00
2000 x 500* x **100**	1,00	2,00	42,00
2000 x 500* x **120**	1,00	2,00	42,00

Packaging:
width 500 mm : 2 rolls in one pack
width 1000 mm: 1 roll in a pack
Rolls/pallet = 42 pcs.
Loading unit = 1 pallet
* 1000 mm width on request

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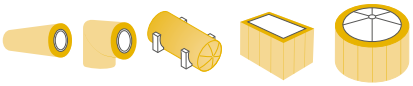
Power-teK® WM 640/660/680 GSN

PRODUCT INFO

VIDEO



DESCRIPTION

Power-teK® WM 640/660/680 GSN is a Rock Mineral Wool mat that is supplied with a **galvanised-steel wire mesh and stainless-steel stitching wire on one side (GSN)**, with max service temperature from 640 to 680°C, depending on density.

Knauf Insulation Power-teK® WM 640/660/680 GSN is produced with **ECOSE® Technology,** a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **A high service temperature is required**
- **Flexible insulation is needed**
- **Chemical inertness needs to be assured (stainless-steel stitching wire is required due to potential contact with other metal materials)**

BENEFITS

- Chemical inertness
- Excellent maximum service temperature
- Strapex band as a carrying aid (can be transported with or without packaging)
- Overlapping galvanised-steel wire mesh on both sides (> 50 mm)
- Strong outer packaging with perforated packaging film (easy to open)
- Flexible and easy to bend
- One product for different sizes and shapes
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR for WM 640
www.dopki.com/T4305FPCPR for WM 660
www.dopki.com/T4305GPCPR for WM 680

CERTIFICATES

Valid only for WM 640, 660:

Valid only for WM 640:

Valid only for WM 660, 680:

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	from 640 to 680 °C (see table below)	°C	EN ISO 18097
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature										Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))										r (kPa s/m²)	–
			50	100	200	300	400	500	600	640	660	680		
WM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	–	≥ 40	MW–EN14303–T2–ST(+)640–WS1–CL10
WM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210	–	≥ 50	MW–EN14303–T2–ST(+)660–WS1–CL10
WM 680	ca.120	680	0,040	0,047	0,062	0,082	0,107	0,140	0,173	–	–	0,200	≥ 65	MW–EN14303–T2–ST(+)680–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667										EN 29053	EN 14303

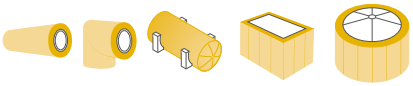
PACKAGING SPECIFICATIONS

(see page 51)

Power-teK® WM 640/660/680 SSN

PRODUCT INFO

VIDEO



DESCRIPTION

Power-teK® WM 640/660/680 SSN is a Rock Mineral Wool mat that is supplied with a **stainless-steel wire mesh and stainless-steel stitching wire on one side (SSN)**, with max service temperature from 640 to 680°C, depending on density.

Knauf Insulation Power-teK® WM 640/660/680 SSN is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **A high service temperature is required**
- **Flexible insulation is needed**
- **Chemical inertness needs to be assured (stainless-steel stitching wire is required due to potential contact with other metal materials)**
- **Any corrosion phenomenon needs to be avoided (special environments)**

BENEFITS

- Chemical inertness
- No corrosion
- Excellent maximum service temperature
- Strapex band as a carrying aid (can be transported with or without packaging)
- Overlapping galvanised-steel wire mesh on both sides (> 50 mm)
- Strong outer packaging with perforated packaging film (easy to open)
- Flexible and easy to bend
- One product for different sizes and shapes
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR for WM 640
www.dopki.com/T4305FPCPR for WM 660
www.dopki.com/T4305GPCPR for WM 680

CERTIFICATES

Valid only for WM 640, 660:

Valid only for WM 640:

ASTM C592-TYPE II

Valid only for WM 660, 680:

ASTM C592-TYPE III

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	from 640 to 680 °C (see table below)	°C	EN ISO 18097
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature										Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))										r (kPa s/m²)	–
			50	100	200	300	400	500	600	640	660	680		
WM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	–	≥ 40	MW–EN14303–T2–ST(+)640–WS1–CL10
WM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210	–	≥ 50	MW–EN14303–T2–ST(+)660–WS1–CL10
WM 680	ca.120	680	0,040	0,047	0,062	0,082	0,107	0,140	0,173	–	–	0,200	≥ 65	MW–EN14303–T2–ST(+)680–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667										EN 29053	EN 14303

PACKAGING SPECIFICATIONS

(see page 51)

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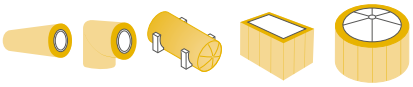
Power-teK® WM 640/660/680 GGA

PRODUCT INFO

VIDEO



DESCRIPTION

Power-teK® WM 640/660/680 GGA is a Rock Mineral Wool mat that is supplied with a **galvanised-steel wire mesh and galvanised-steel stitching wire on one side, with aluminium foil facing between the mesh and the mineral wool (GGA)** and with max service temperature from 640 to 680 °C, depending on density.

Knauf Insulation Power-teK® WM 640/660/680 GGA is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **A high service temperature is required**
- **Flexible insulation is needed**
- **Chemical inertness needs to be assured (stainless-steel stitching wire is required due to potential contact with other metal materials)**
- **A water vapour barrier and reduced air flow are required (ALU foil needed to assure it).**

BENEFITS

- Aluminium foil acts as a water vapour barrier and reduces airflow
- Excellent maximum service temperature
- Strapex band as a carrying aid (can be transported with or without packaging)
- Overlapping galvanised-steel wire mesh on both sides (> 50 mm)
- Strong outer packaging with perforated packaging film (easy to open)
- Flexible and easy to bend
- One product for different sizes and shapes
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR for WM 640
www.dopki.com/T4305FPCPR for WM 660
www.dopki.com/T4305GPCPR for WM 680

CERTIFICATES

Valid only for WM 640, 660:

Valid only for WM 640:

ASTM C592-TYPE II

Valid only for WM 660, 680:

ASTM C592-TYPE III

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	from 640 to 680 °C (see table below)	°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80	°C	–
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature										Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))										r (kPa s/m²)	-
			50	100	200	300	400	500	600	640	660	680		
WM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	–	≥ 40	MW–EN14303–T2–ST(+)640–WS1–CL10
WM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210	–	≥ 50	MW–EN14303–T2–ST(+)660–WS1–CL10
WM 680	ca.120	680	0,040	0,047	0,062	0,082	0,107	0,140	0,173	–	–	0,200	≥ 65	MW–EN14303–T2–ST(+)680–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667										EN 29053	EN 14303

PACKAGING SPECIFICATIONS

(see page 51)

WIRED MAT

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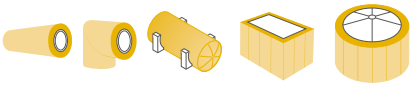
Power-teK® WM 640/660/680 GSA

PRODUCT INFO

VIDEO



DESCRIPTION

Power-teK® WM640/660/680 GSA is a Rock Mineral Wool mat that is supplied with a **galvanised-steel wire mesh and stainless-steel stitching wire on one side, with aluminium foil facing between the mesh and the mineral wool (GSA)**, and with max service temperature from 640 to 680°C, depending on density.

Knauf Insulation Power-teK® WM 640/660/680 GSA is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials

BENEFITS

- Chemical inertness
- Aluminium foil acts as a water vapour barrier and reduces airflow
- Excellent maximum service temperature
- Strapex band as a carrying aid (can be transported with or without packaging)
- Overlapping galvanised-steel wire mesh on both sides (> 50 mm)
- Strong outer packaging with perforated packaging film (easy to open)
- Flexible and easy to bend
- One product for different sizes and shapes
- ECOSE® Technology

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **A high service temperature is required**
- **Flexible insulation is needed**
- **Chemical inertness needs to be assured (stainless-steel stitching wire is required due to potential contact with other metal materials)**
- **A water vapour barrier and reduced air flow are required (ALU foil needed to assure it).**

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR for WM 640
www.dopki.com/T4305FPCPR for WM 660
www.dopki.com/T4305GPCPR for WM 680

CERTIFICATES

Valid only for WM 640, 660:

Valid only for WM 640:

ASTM C592-TYPE II

Valid only for WM 660, 680:

ASTM C592-TYPE III

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	from 640 to 680 °C (see table below)	°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80	°C	–
Water soluble chloride ions (AS quality)	–	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature										Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))										r (kPa s/m²)	-
			50	100	200	300	400	500	600	640	660	680		
WM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	–	≥ 40	MW–EN14303–T2–ST(+)640–WS1–CL10
WM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210	–	≥ 50	MW–EN14303–T2–ST(+)660–WS1–CL10
WM 680	ca.120	680	0,040	0,047	0,062	0,082	0,107	0,140	0,173	–	–	0,200	≥ 65	MW–EN14303–T2–ST(+)680–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667										EN 29053	EN 14303

PACKAGING SPECIFICATIONS

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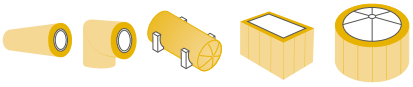
Power-teK® WM 640/660/680 SSA

PRODUCT INFO

VIDEO



DESCRIPTION

Power-teK® WM 640/660/680 SSA is a Rock Mineral Wool mat that is supplied with a **stainless-steel wire mesh and stainless-steel stitching wire on one side, with aluminium foil facing between the mesh and the mineral wool (SSA)**, with max service temperature from 640 to 680°C, depending on density.

Knauf Insulation Power-teK® WM 640/660/680 SSA is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **A high service temperature is required**
- **Flexible insulation is needed**
- **Chemical inertness needs to be assured (stainless-steel stitching wire is required due to potential contact with other metal materials)**
- **Any corrosion phenomenon needs to be avoided (special environments).**
- **A water vapour barrier and reduced air flow are required (ALU foil needed to assure it).**

BENEFITS

- Chemical inertness
- No corrosion
- Aluminium foil acts as a water vapour barrier and reduces airflow
- Excellent maximum service temperature
- Strapex band as carrying aid (can be transported with or without packaging)
- Overlapping galvanized-steel wire mesh on both sides (> 50 mm)
- Strong outer packaging with perforated packaging film (easy to open)
- Flexible and easy to bend
- One product for different sizes and shapes
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR for WM 640
www.dopki.com/T4305FPCPR for WM 660
www.dopki.com/T4305GPCPR for WM 680

CERTIFICATES

Valid only for WM 640, 660:

Valid only for WM 640:

ASTM C592-TYPE II

Valid only for WM 660, 680:

ASTM C592-TYPE III

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	from 640 to 680 °C (see table below)	°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80	°C	–
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 1430
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature										Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))										r (kPa s/m²)	-
			50	100	200	300	400	500	600	640	660	680		
WM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	–	≥ 40	MW–EN14303–T2–ST(+)640–WS1–CL10
WM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210	–	≥ 50	MW–EN14303–T2–ST(+)660–WS1–CL10
WM 680	ca.120	680	0,040	0,047	0,062	0,082	0,107	0,140	0,173	–	–	0,200	≥ 65	MW–EN14303–T2–ST(+)680–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667										EN 29053	EN 14303

PACKAGING SPECIFICATIONS

(see page 51)

Power-teK® WM 640/660 GGV

DESCRIPTION

Power-teK® WM 640/660 GGV is a Rock Mineral Wool mat that is supplied with a **galvanised wire and galvanised mesh on one side, with white glass veil between mesh and mineral wool (GGV)** for protection from dust/ flocks, with max service temperature from 640 or 660 °C, depending on density.

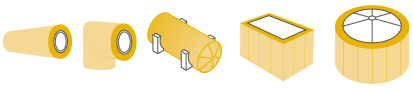
Knauf Insulation Power-teK® WM 640/660 GGV is produced with **ECOSE® Technology**, a patented binder system, entirely based on renewable raw materials.

BENEFITS

- Protection against dust
- Assuring environmental comfort
- Excellent maximum service temperature
- Strapex band as a carrying aid (can be transported with or without packaging)
- Overlapping galvanised-steel wire mesh on both sides (> 50 mm)
- Strong outer packaging with perforated packaging film (easy to open)
- Flexible and easy to bend
- One product for different sizes and shapes
- ECOSE® Technology

PRODUCT INFO

VIDEO



APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **A high service temperature is required**
- **Flexible insulation is needed**
- **Dust protection and comfort need to be assured (white glass veil)**

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR for WM 640
www.dopki.com/T4305FPCPR for WM 660

CERTIFICATES

Valid only for WM 640, 660:

Valid only for WM 640:

ASTM C592-TYPE II

Valid only for WM 660:

ASTM C592-TYPE III

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	640 or 660 °C (see table below)	°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 150	°C	–
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature										Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))										r (kPa s/m²)	-
			50	100	200	300	400	500	600	640	660	660		
WM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	–	≥ 40	MW–EN14303–T2–ST(+)640–WS1–CL10
WM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210	0,190	≥ 50	MW–EN14303–T2–ST(+)660–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667										EN 29053	EN 14303

PACKAGING SPECIFICATIONS

(see page 51)

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POWER-TEK PB SYS WM1 KNAUF INSULATION SYSTEM WITHOUT SUB-CONSTRUCTION

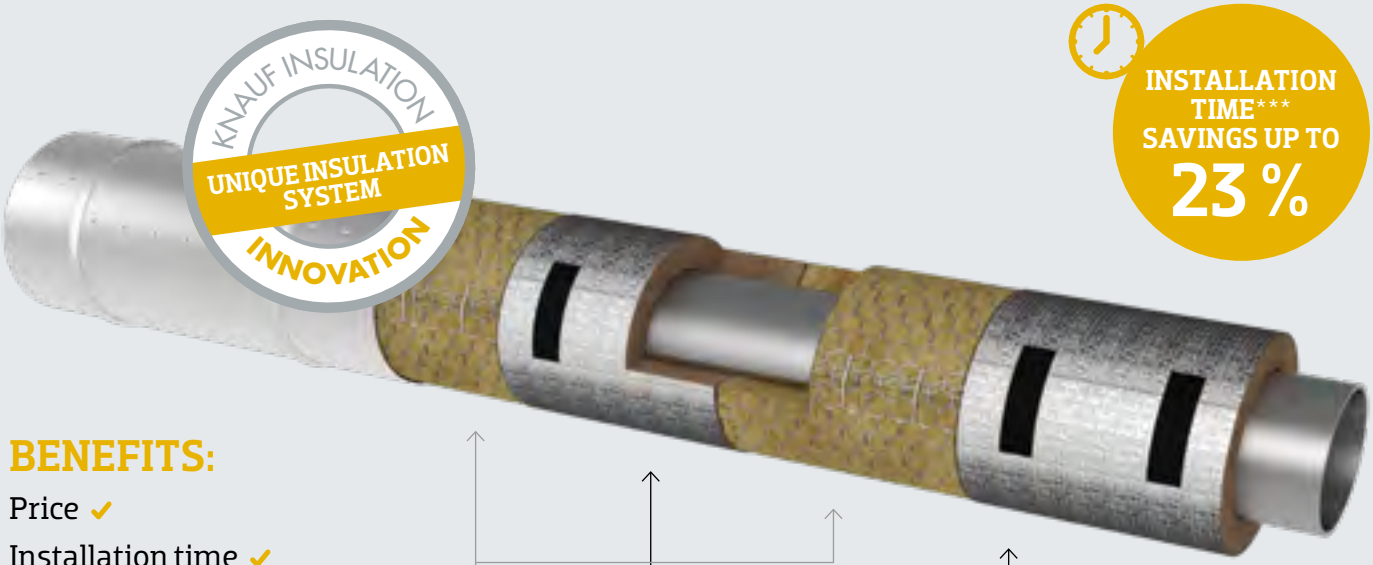
HEAT LOSS* SAVING UP TO 21 %

SAVINGS IN LOGISTIC UP TO** 80 %

INSTALLATION TIME*** SAVINGS UP TO 23 %

EFFICIENT AND ECONOMICAL WITH A QUICK PAYBACK

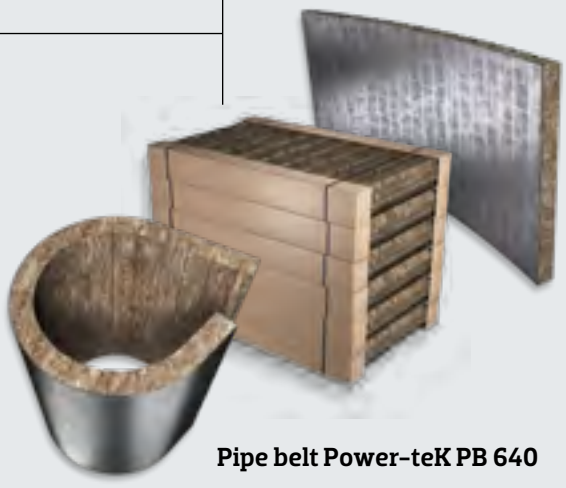
Unique Knauf Insulation system consisting of **Pipe Belt Power-teK PB 640** and **Wired Mat Power-teK WM 640**, featuring ECOSE® Technology, which is designed to with stand forces in such a way that typical **metal sub-construction becomes unnecessary**.



BENEFITS:

- Price ✓
- Installation time ✓
- Logistic ✓
- No thermal bridges ✓
- Compressive strength ✓

Wired mat Power-teK WM 640



Pipe belt Power-teK PB 640

STAND ALONE SOLUTION FOR LARGE PIPES INSULATION This innovative Knauf Insulation solution is a combination of two products, designed for the insulation of large diameter pipes. The innovative system made expensive metal construction excessive, ensures quicker installation times and fewer labor hours leading to an overall **lower cost of installation**.

TYPICAL APPLICATIONS

For installations on pipe work with diameter bigger than DN 300 in many cases a metal under construction to take forces from the final metal cladding is necessary; our innovative system of two products system provides a solution that can avoid this complicated and expensive additional metal construction.

* vs compressive strenght lamella mats,, ** vs. pipe section, *** vs. wired mats with sub construction

PIPE SECTION

Power-teK® PS 680

BACK TO CONTENT PAGE

POWER-TEK

PRODUCT INFO

DESCRIPTION

Power-teK® PS 680 is a circular-wound Rock Mineral Wool pipe section with minimum product tolerances of the inner and outer diameters thanks to the use of cutting-edge production technologies.
The 1200 mm long pipe section has a maximum service temperature of **680 °C** and a **slit on one side** for easier installation. A supporting construction for the cladding is not required.

Knauf Insulation Power-teK® PS 680 is produced with **ECOSE® Technology,** a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **Good thermal conductivity with no thermal bridges is needed**
- **Easier application of additional cladding is required**
- **Optimal rigidity is required**
- **Higher maximum service temperature is needed**

BENEFITS

- High maximum service temperature
- Good thermal conductivity
- No supporting construction needed
- Optimal rigidity
- Easy and fast installation
- Adapts to the unevenness of pipes
- 1200 mm length
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305JPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications							Unit	Standard
Reaction to fire	-	$A1_L$							–	EN 13501-1
Thermal conductivity depending on mean temperature*	ϑ	40	50	100	150	200	300	350	°C	EN ISO 8497
	λ	0,038	0,039	0,045	0,053	0,062	0,087	0,102	W/(m·K)	
Maximum service temperature*	ST(+)	680							°C	EN ISO 18096
Water soluble chloride ions (AS quality)*	-	≤ 10							ppm	EN ISO 12624
Density	ρ	ca. 110–140							kg/m^3	EN ISO 18098
Water absorption*	W_p	≤ 1,0							kg/m^2	EN ISO 12623
Water vapour diffusion resistance	μ	1							–	EN 14303
Melting point of fibres	ϑ	≥ 1000							°C	DIN 4102-17
Silicone-free fibress	-	No emissions of lacquering disturbing substances							–	–
Insulation material code*	-	10.04.04.99.99							–	AGI Q 132
Specific heat capacity	C_p	1030							J/(kgK)	EN ISO 10456
Designation code	-	MW–EN14303–T8–ST(+)680–WS1–CL10 (OD < 150 mm)							–	EN 14303
	-	MW–EN14303–T9–ST(+)680–WS1–CL10 (OD ≥ 150 mm)							–	EN 14303

* Keymark monitored
The technical details are for information purposes only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

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Internal Ø (mm)	DN (mm)	NPS (")	Thickness 20 mm		Thickness 25 mm		Thickness 30 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
15	-	-	1036,80	57,60	720,00	30,00	540,00	30,00	15
18	-	-	907,20	50,40	662,40	27,60	540,00	30,00	18
22	15	1/2	777,60	32,40	576,00	24,00	432,00	24,00	22
28	20	3/4	648,00	36,00	489,60	20,40	432,00	24,00	28
35	25	1	540,00	30,00	388,80	21,60	345,60	19,20	35
42	32	1 1/4	388,80	21,60	345,60	19,20	259,20	14,40	42
48	40	1 1/2	345,60	19,20	302,40	16,80	216,00	12,00	48
54	-	-	302,40	16,80	216,00	12,00	172,80	9,60	54
60	50	2	259,20	14,40	216,00	12,00	194,40	10,80	60
64	-	-	216,00	12,00	194,40	10,80	172,80	9,60	64
70	-	-	237,60	13,20	194,40	10,80	194,40	10,80	70
76	65	2 1/2	194,40	10,80	172,80	9,60	151,20	8,40	76
89	80	3	194,40	10,80	151,20	8,40	108,00	6,00	89
102	-	-	86,40	4,80	86,40	4,80	86,40	4,80	102
108	-	-	86,40	4,80	86,40	4,80	86,40	4,80	108
114	100	4	108,00	6,00	86,40	4,80	86,40	4,80	114
127	-	-			86,40	4,80	86,40	4,80	127
133	-	-			86,40	4,80	86,40	4,80	133
140	125	5			86,40	4,80	79,20	1,20	140
156	-	-			72,00	1,20	72,00	1,20	156
159	-	-			72,00	1,20	62,40	1,20	159
168	150	6			64,80	1,20	60,00	1,20	168
194	-	-			52,80	1,20	48,00	1,20	194
219	200	8			40,80	1,20	38,40	1,20	219
245	-	-			38,40	1,20	33,60	1,20	245
259	-	-			31,20	1,20	28,80	1,20	259
273	250	10			28,80	1,20	26,40	1,20	273
305	-	-			21,60	1,20	21,60	1,20	305
324	300	12			21,60	1,20	21,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 40 mm		Thickness 50 mm		Thickness 60 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
18	-	-	302,40	16,80					
22	15	1/2	280,80	15,60	194,40	10,80	129,60	7,20	22
28	20	3/4	259,20	14,40	194,40	10,80	129,60	7,20	28
35	25	1	194,40	10,80	172,80	9,60	108,00	6,00	35
42	32	1 1/4	194,40	10,80	129,60	7,20	108,00	6,00	42
48	40	1 1/2	194,40	10,80	129,60	7,20	86,40	4,80	48
54	-	-	172,80	9,60	108,00	6,00	86,40	4,80	54
60	50	2	129,60	7,20	108,00	6,00	86,40	4,80	60
64	-	-	129,60	7,20	86,40	4,80	86,40	4,80	64
70	-	-	108,00	6,00	86,40	4,80	86,40	4,80	70
76	65	2 1/2	108,00	6,00	86,40	4,80	86,40	4,80	76
89	80	3	86,40	4,80	86,40	4,80	72,00	1,20	89
102	-	-	86,40	4,80	76,80	1,20	62,40	1,20	102
108	-	-	86,40	4,80	72,00	1,20	60,00	1,20	108
114	100	4	86,40	4,80	72,00	1,20	60,00	1,20	114
127	-	-	72,00	1,20	60,00	1,20	48,00	1,20	127
133	-	-	72,00	1,20	60,00	1,20	48,00	1,20	133
140	125	5	64,80	1,20	57,60	1,20	48,00	1,20	140
156	-	-	60,00	1,20	48,00	1,20	38,40	1,20	156
159	-	-	60,00	1,20	48,00	1,20	43,20	1,20	159
168	150	6	55,20	1,20	48,00	1,20	38,40	1,20	168
194	-	-	43,20	1,20	38,40	1,20	31,20	1,20	194
219	200	8	38,40	1,20	31,20	1,20	28,80	1,20	219
245	-	-	26,40	1,20	24,00	1,20	21,60	1,20	245
259	-	-	24,00	1,20	21,60	1,20	21,60	1,20	259
273	250	10	21,60	1,20	21,60	1,20	21,60	1,20	273
305	-	-	21,60	1,20	16,80	1,20	14,40	1,20	305
324	300	12	16,80	1,20	14,40	1,20	14,40	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 70 mm		Thickness 80 mm		Thickness 100 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
22	15	1/2	86,40	4,80					
28	20	3/4	86,40	4,80	86,40	4,80			28
35	25	1	86,40	4,80	86,40	4,80			35
42	32	1 1/4	86,40	4,80	76,80	1,20	52,80	1,20	42
48	40	1 1/2	86,40	4,80	72,00	1,20	52,80	1,20	48
54	-	-	86,40	4,80	72,00	1,20	50,40	1,20	54
60	50	2	79,20	1,20	64,80	1,20	48,00	1,20	60
64	-	-	74,40	1,20	60,00	1,20	48,00	1,20	64
70	-	-	72,00	1,20	60,00	1,20	40,80	1,20	70
76	65	2 1/2	72,00	1,20	60,00	1,20	43,20	1,20	76
89	80	3	60,00	1,20	50,40	1,20	38,40	1,20	89
102	-	-	55,20	1,20	48,00	1,20	33,60	1,20	102
108	-	-	50,40	1,20	48,00	1,20	33,60	1,20	108
114	100	4	48,00	1,20	43,20	1,20	31,20	1,20	114
127	-	-	43,20	1,20	38,40	1,20	28,80	1,20	127
133	-	-	40,80	1,20	38,40	1,20	26,40	1,20	133
140	125	5	43,20	1,20	38,40	1,20	28,80	1,20	140
156	-	-	38,40	1,20	31,20	1,20	21,60	1,60	156
159	-	-	38,40	1,20	31,20	1,20	24,00	1,20	159
168	150	6	33,60	1,20	28,80	1,20	21,60	1,20	168
194	-	-	28,80	1,20	24,00	1,20	21,60	1,20	194
219	200	8	24,00	1,20	21,60	1,20	16,80	1,20	219
245	-	-	21,60	1,20	19,20	1,20	14,40	1,20	245
259	-	-	19,20	1,20	16,80	1,20	12,00	1,20	259
273	250	10	16,80	1,20	14,40	1,20	12,00	1,20	273
305	-	-	14,40	1,20	12,00	1,20	9,60	1,20	305
324	300	12	12,00	1,20	12,00	1,20	9,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 120 mm		Internal Ø (mm)
			lm/pallet	lm/package	
54	-	-	38,40	1,20	54
60	50	2	38,40	1,20	60
64	-	-	33,60	1,20	64
70	-	-	31,20	1,20	70
76	65	2 1/2	31,20	1,20	76
89	80	3	28,80	1,20	89
102	-	-	24,00	1,20	102
108	-	-	24,00	1,20	108
114	100	4	24,00	1,20	114
127	-	-	21,60	1,20	127
133	-	-	21,60	1,20	133
140	125	5	21,60	1,20	140
156	-	-	21,60	1,20	156
159	-	-	21,60	1,20	159
168	150	6	16,80	1,20	168
194	-	-	14,40	1,20	194
219	200	8	12,00	1,20	219
245	-	-	12,00	1,20	245
259	-	-	12,00	1,20	259
273	250	10	9,60	1,20	273
305	-	-	9,60	1,20	305
324	300	12	9,60	1,20	324

Other dimensions or packaging units on request. The technical details are for information only. Please refer to the data sheet for complete current details.
www.knaufinsulation-ts.com

Individual pipe sections (packaging content = 1,20 m) are packed in foil.

- ☐ Cardboard packaging, 18 cardboard boxes on a pallet, dimensions cardboard: H x W x D = 1200 x 400 x 400 mm
- ☐ Cardboard packaging, 24 cardboard boxes on a pallet, dimensions Carton: H x W x D = 1200 x 400 x 300 mm

Multi-layer installation

Tolerance classes: T8/T9 in accordance with EN 14303
Due to the standard product tolerances for internal and external diameters in accordance with EN 14303, Knauf Insulation can only ensure dimensional compatibility for the installation of multi-layer pipe sections if our Customer Service department was informed at the time of order that the pipe sections are to be used in multi-layer applications.

NOTE: When ordering, please state explicitly that the pipe sections are to be used for two-layer insulation.

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Power-teK PB® 640/680 ALU

PRODUCT INFO

DESCRIPTION

Power-teK® PB 640/680 ALU is a pre-assembled Rock Mineral Wool pipe belt **for use on pipelines with nominal diameters > 300 mm** and for multi-layer installations. Due to the trapezoid lamella adhered to a tear-resistant, glass mesh reinforced aluminium foil on one side, Power-teK® PB 640/680 ALU can be shipped on pallets to save space. As there is no need for a supporting structure, the segments can be quickly and easily installed.

Knauf Insulation Power-teK PB 640/680 ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

✔ **Pipe insulation**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

✔ **Where special sizes of pipe lines need to be insulated**
✔ **For pipes, where DN > 300 mm**
✔ **When faster and easier installation is required**

BENEFITS

✔ Suitable for special sizes of pipes
✔ Suitable for pipe lines with bigger diameters
✔ High maximum service temperature
✔ Compressed packaging (logistical advantage)
✔ Multilayer installations possible
✔ Easy and fast installation
✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305VPCPR for PB 640 ALU
www.dopki.com/T4305SPCPR for PB 680 ALU

CERTIFICATES

Valid only for PB 680 ALU:

ASTM C547-TYPE III-A

PERFORMANCE

Properties	Symbol	Description/specifications	Unit	Standard
Reaction to fire	–	A1	–	EN 13501-1
Maximum service temperature*	ST(+)	640/680	°C	EN ISO 18097
Water soluble chloride ions (AS quality)	–	≤ 10	ppm	EN ISO 12624
Density	ρ	ca. 80/120	kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200	m	EN 12086
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances	–	–
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456

* The temperature between the insulation layers must not exceed 180 °C and at the outside max. 80 °C.

	Density	MST	Thermal conductivity depending on temperature**							Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))							–
			50	100	150	200	250	300	350	
PB 640	ca.80	640	0,039	0,046	0,054	0,064	0,077	0,091	–	MW–EN14303–T9–ST(+)640–WS1–MV2–CL10
PB 680	ca.120	680	0,042	0,047	0,054	0,063	–	0,087	0,102	MW–EN14303–T9–ST(+)680–WS1–MV2–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667							EN 14303

** Measured values of the flat pre-material according to EN 12667 were converted to the application as a pipe section, comparable with measurements according to EN ISO 8497

STRAIGHT SEGMENTS POWER-TEK® PB 640 ALU

Ø	DN (mm)	NPS (")	Data	Thickness 40	Thickness 50	Thickness 60	Thickness 70	Thickness 80	Thickness 90	Thickness 100
356	350	14	Segments per belt*	1	1	1	1	1	1	1
			Linear metres per pallet**	60	48	40	36	30	27	24
			Pallet size (mm)***	1000 x 1400	1000 x 1500	1000 x 1500	1000 x 1600	1000 x 1700	1000 x 1700	1000 x 1800
407	400	16	Segments per belt*	1	1	1	1	1	1	1
			Linear metres per pallet**	60	48	40	36	30	27	24
			Pallet size (mm)***	1000 x 1600	1000 x 1600	1000 x 1700	1000 x 1800	1000 x 1800	1000 x 1900	1000 x 2000
458	450	18	Segments per belt*	1	1	1	1	1	1	2
			Linear metres per pallet**	60	48	40	36	30	27	12
			Pallet size (mm)***	1000 x 1700	1000 x 1800	1000 x 1900	1000 x 1900	1000 x 2000	1000 x 2000	1000 x 1100
508	500	20	Segments per belt*	1	1	1	2	2	2	2
			Linear metres per pallet**	60	48	40	18	16	14	12
			Pallet size (mm)***	1000 x 1900	1000 x 2000	1000 x 2000	1000 x 1100	1000 x 1100	1000 x 1100	1000 x 1200
559	-	22	Segments per belt*	2	2	2	2	2	2	2
			Linear metres per pallet**	32	24	20	18	16	14	12
			Pallet size (mm)***	1000 x 1100	1000 x 1100	1000 x 1100	1000 x 1200	1000 x 1200	1000 x 1200	1000 x 1300
610	600	24	Segments per belt*	2	2	2	2	2	2	2
			Linear metres per pallet**	32	24	20	18	16	14	12
			Pallet size (mm)***	1000 x 1100	1000 x 1200	1000 x 1200	1000 x 1200	1000 x 1200	1000 x 1300	1000 x 1300
712	700	28	Segments per belt*	2	2	2	2	2	2	2
			Linear metres per pallet**	32	24	20	18	16	14	12
			Pallet size (mm)***	1000 x 1300	1000 x 1300	1000 x 1400	1000 x 1400	1000 x 1400	1000 x 1400	1000 x 1500
813	800	32	Segments per belt*	2	2	2	2	2	2	2
			Linear metres per pallet**	32	24	20	18	16	14	12
			Pallet size (mm)***	1000 x 1500	1000 x 1500	1000 x 1500	1000 x 1500	1000 x 1600	1000 x 1600	1000 x 1700
915	900	36	Segments per belt*	2	2	2	2	2	2	2
			Linear metres per pallet**	32	24	20	18	16	14	12
			Pallet size (mm)***	1000 x 1600	1000 x 1600	1000 x 1700	1000 x 1700	1000 x 1700	1000 x 1800	1000 x 1800
1010	1000	40	Segments per belt*	2	2	2	2	2	2	2
			Linear metres per pallet**	32	24	20	18	16	14	12
			Pallet size (mm)***	1000 x 1800	1000 x 1800	1000 x 1800	1000 x 1900	1000 x 1900	1000 x 1900	1000 x 2000

Ø	DN (mm)	NPS (")	Data	Thickness 100	Thickness 120	Thickness 140	Thickness 160
356	350	14	Segments per belt*	1	1	1	2
			Linear metres per pallet**	24	20	17	8
			Pallet size (mm)***	1000 x 1800	1000 x 1900	1000 x 2000	1000 x 1100
407	400	16	Segments per belt*	1	2	2	2
			Linear metres per pallet**	24	10	9	8
			Pallet size (mm)***	1000 x 2000	1000 x 1100	1000 x 1100	1000 x 1200
458	450	18	Segments per belt*	2	2	2	2
			Linear metres per pallet**	12	10	9	8
			Pallet size (mm)***	1000 x 1100	1000 x 1100	1000 x 1200	1000 x 1300
508	500	20	Segments per belt*	2	2	2	2
			Linear metres per pallet**	12	10	9	8
			Pallet size (mm)***	1000 x 1200	1000 x 1200	1000 x 1300	1000 x 1300
559	-	22	Segments per belt*	2	2	2	2
			Linear metres per pallet**	12	10	9	8
			Pallet size (mm)***	1000 x 1300	1000 x 1300	1000 x 1400	1000 x 1400
610	600	24	Segments per belt*	2	2	2	2
			Linear metres per pallet**	12	10	9	8
			Pallet size (mm)***	1000 x 1300	1000 x 1400	1000 x 1400	1000 x 1500
712	700	28	Segments per belt*	2	2	2	2
			Linear metres per pallet**	12	10	9	8
			Pallet size (mm)***	1000 x 1500	1000 x 1600	1000 x 1600	1000 x 1700
813	800	32	Segments per belt*	2	2	2	2
			Linear metres per pallet**	12	10	9	8
			Pallet size (mm)***	1000 x 1700	1000 x 1700	1000 x 1800	1000 x 1800
915	900	36	Segments per belt*	2	2	2	2
			Linear metres per pallet**	12	10	9	8
			Pallet size (mm)***	1000 x 1800	1000 x 1900	1000 x 1900	1000 x 2000
1010	1000	40	Segments per belt*	2	2	2	3
			Linear metres per pallet**	12	10	6	5
			Pallet size (mm)***	1000 x 2000	1000 x 2000	1000 x 1400	1000 x 1400

* A belt will fit the circumference of the relevant pipe; depending on diameter and insulation thickness one belt may consist of 1, 2 or 3 segments (2 segments to be joint on site to build the final belt before installing on the pipe)

** The PB 640 belt is always 500 mm wide (1000 mm width available on demand); to cover 1 linear meter of pipe work two pieces of PB 640 in relevant size are necessary

*** The pallet size varies with the length of the segment(s) according to diameter of pipe and insulation thickness

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STRAIGHT SEGMENTS POWER-TEK® PB 680 ALU*

* All details in mm. Standard segment length: 1000 mm. Number of segments per unit: 2 pcs. Further information on request.

Ø	DN (mm)	NPS (")	Data	Thickness 40	Thickness 50	Thickness 60	Thickness 70	Thickness 80	Thickness 90	Thickness 100	Thickness 110	Thickness 120
356	350	14	Segment width	705,9	737,3	767,7	800,1	835,5	867,9	903,4	935,8	971,2
			Linear mm/package	3600	3600	2400	2400	1200	1200	1200	1200	1200
			Linear mm/pallet	36000	28800	24000	19200	18000	15600	14400	13200	12000
			Pallet length	800	800	800	800	1000	1000	1000	1000	1000
407	400	16	Segment width	786,0	818,4	847,8	880,2	915,6	948,1	983,5	1015,9	1051,3
			Linear mm/package	3600	3600	3600	2400	2400	1200	1200	1200	1200
			Linear mm/pallet	36000	28800	24000	19200	18000	15600	14400	13200	12000
			Pallet length	800	1000	1000	1000	1000	1000	1000	1200	1200
458	450	18	Segment width	866,1	898,5	927,9	960,3	995,8	1028,2	1063,6	1096,0	1131,4
			Linear mm/package	3600	2400	2400	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	36000	28800	24000	20400	18000	15600	14400	13200	12000
			Pallet length	1000	1000	1000	1000	1000	1200	1200	1200	1200
508	500	20	Segment width	944,6	977,0	1006,5	1038,9	1074,3	1106,7	1142,1	1174,5	1210,0
			Linear mm/package	2400	2400	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	36000	28800	24000	20400	18000	15600	14400	13200	12000
			Pallet length	1000	1000	1000	1200	1200	1200	1200	1200	1500
559	-	22	Segment width	1024,7	1057,2	1086,6	1119,0	1154,4	1186,8	1222,2	1254,7	1290,1
			Linear mm/package	3600	2400	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	36000	28800	24000	20400	18000	15600	15600	13200	12000
			Pallet length	1200	1200	1200	1200	1200	1200	1500	1500	1500
610	600	24	Segment width	1104,8	1137,3	1166,7	1199,1	1234,5	1266,9	1302,3	1334,8	1370,2
			Linear mm/package	2400	2400	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	18000	14400	24000	20400	19200	16800	15600	13200	12000
			Pallet length	1200	1200	1200	1200	1500	1500	1500	1500	1500
661	-	26	Segment width	1185,0	1217,4	1246,8	1279,2	1314,6	1347,0	1382,5	1414,9	1450,3
			Linear mm/package	2400	2400	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	36000	28800	25200	21600	19200	16800	15600	13200	12000
			Pallet length	1200	1500	1500	1500	1500	1500	1500	1500	1500
712	700	28	Segment width	1265,1	1297,5	1326,9	1359,3	1394,7	1427,2	1462,6	1495,0	1530,4
			Linear mm/package	2400	2400	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	38400	31200	25200	21600	19200	16800	15600	13200	12000
			Pallet length	1500	1500	1500	1500	1500	1500	1500	1500	1500
762	-	30	Segment width	1343,6	1376,0	1405,4	1437,9	1473,3	1505,7	1541,1	1573,5	1608,9
			Linear mm/package	2400	2400	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	38400	31200	25200	21600	19200	16800	15600	13200	12000
			Pallet length	1500	1500	1500	1500	1500	1600	1600	1600	1700
813	800	32	Segment width	1423,7	1456,1	1485,6	1518,0	1553,4	1585,8	1621,2	1653,6	1689,0
			Linear mm/package	2400	1200	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	38400	31200	25200	21600	19200	16800	15600	13200	12000
			Pallet length	1500	1500	1500	1600	1600	1600	1700	1700	1700
839	-	-	Segment width	1464,6	1497,0	1526,4	1558,8	1594,2	1626,6	1662,1	1694,5	1729,9
			Linear mm/package	2400	1200	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	38400	31200	25200	21600	19200	16800	15600	13200	12000
			Pallet length	1500	1500	1600	1600	1600	1700	1700	1700	1800
864	-	-	Segment width	1503,8	1536,2	1565,7	1598,1	1633,5	1665,9	1701,3	1733,7	1769,2
			Linear mm/package	1200	1200	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	38400	31200	25200	21600	19200	16800	15600	13200	12000
			Pallet length	1600	1600	1600	1700	1700	1700	1800	1800	1800
915	900	36	Segment width	1583,9	1616,4	1645,8	1678,2	1713,6	1746,0	1781,4	1813,9	1849,3
			Linear mm/package	1200	1200	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	38400	31200	25200	21600	19200	16800	15600	13200	12000
			Pallet length	1600	1700	1700	1700	1800	1800	1800	1900	1900
1010	1000	40	Segment width	1733,2	1765,6	1795,0	1827,4	1862,8	1895,2	1930,7	1963,1	1998,5
			Linear mm/package	1200	1200	1200	1200	1200	1200	1200	1200	1200
			Linear mm/pallet	38400	31200	25200	21600	19200	16800	15600	13200	12000
			Pallet length	1800	1800	1800	1900	1900	1900	2000	2000	2000

PIPE SECTION

Power-teK® PS 700

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POWER-TEK

PRODUCT INFO

DESCRIPTION

Power-teK® PS 700 is a circular-wound Rock Mineral Wool pipe section with minimum product tolerances of the inner and outer diameters thanks to the use of cutting-edge production technologies.
The 1200 mm long pipe section has a maximum service temperature of **680 °C** and is **slit on one side** for easier installation. A supporting construction for the cladding is not required.

Knauf Insulation Power-teK® PS 700 is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- ✔ **Pipe insulation**
- ✔ **Pipe insulation elbows**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- ✔ **Good thermal conductivity with no thermal bridges is needed**
- ✔ **Easier application of additional cladding is required.**
- ✔ **Optimal rigidity is required**
- ✔ **Higher maximum service temperature is needed**

BENEFITS

- ✔ High maximum service temperature
- ✔ Good thermal conductivity
- ✔ No supporting construction needed
- ✔ Optimal rigidity
- ✔ Easy and fast installation
- ✔ Adapts to the unevenness of pipes
- ✔ 1200 mm length
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305JPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications						Unit	Standard
Reaction to fire	–	$A1_L$						–	EN 13501-1
Thermal conductivity depending on mean temperature	ϑ	50	100	150	200	300	350	°C	EN ISO 8497
	λ	0,039	0,045	0,053	0,062	0,087	0,102	W/(m·K)	
Maximum service temperature	ST(+)	680						°C	EN ISO 18096
Water soluble chloride ions (AS quality)	–	≤ 10						ppm	EN ISO 12624
Density	ρ	ca. 140						kg/m³	EN ISO 18098
Water absorption	W_p	≤ 1,0						kg/m²	EN ISO 12623
Water vapour diffusion resistance	μ	1						–	EN 14303
Melting point of fibres	ϑ	≥ 1000						°C	DIN 4102-17
Silicone-free fibress	–	No emissions of lacquering disturbing substances						–	–
Specific heat capacity	C_p	1030						J/(kgK)	EN ISO 10456
Designation code	–	MW–EN14303–T8–ST(+)680–WS1–CL10 (OD < 150 mm)						–	EN 14303
	–	MW–EN14303–T9–ST(+)680–WS1–CL10 (OD ≥ 150 mm)						–	EN 14303

The technical details are for information purposes only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

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Internal Ø (mm)	DN (mm)	NPS (")	Thickness 20 mm		Thickness 25 mm		Thickness 30 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
15	-	-	1036,80	57,60	720,00	30,00	540,00	30,00	15
18	-	-	907,20	50,40	662,40	27,60	540,00	30,00	18
22	15	1/2	777,60	32,40	576,00	24,00	432,00	24,00	22
28	20	3/4	648,00	36,00	489,60	20,40	432,00	24,00	28
35	25	1	540,00	30,00	388,80	21,60	345,60	19,20	35
42	32	1 1/4	388,80	21,60	345,60	19,20	259,20	14,40	42
48	40	1 1/2	345,60	19,20	302,40	16,80	216,00	12,00	48
54	-	-	302,40	16,80	216,00	12,00	172,80	9,60	54
60	50	2	259,20	14,40	216,00	12,00	194,40	10,80	60
64	-	-	216,00	12,00	194,40	10,80	172,80	9,60	64
70	-	-	237,60	13,20	194,40	10,80	194,40	10,80	70
76	65	2 1/2	194,40	10,80	172,80	9,60	151,20	8,40	76
89	80	3	194,40	10,80	151,20	8,40	108,00	6,00	89
102	-	-	86,40	4,80	86,40	4,80	86,40	4,80	102
108	-	-	86,40	4,80	86,40	4,80	86,40	4,80	108
114	100	4	108,00	6,00	86,40	4,80	86,40	4,80	114
127	-	-			86,40	4,80	86,40	4,80	127
133	-	-			86,40	4,80	86,40	4,80	133
140	125	5			86,40	4,80	79,20	1,20	140
156	-	-			72,00	1,20	72,00	1,20	156
159	-	-			72,00	1,20	62,40	1,20	159
168	150	6			64,80	1,20	60,00	1,20	168
194	-	-			52,80	1,20	48,00	1,20	194
219	200	8			40,80	1,20	38,40	1,20	219
245	-	-			38,40	1,20	33,60	1,20	245
259	-	-			31,20	1,20	28,80	1,20	259
273	250	10			28,80	1,20	26,40	1,20	273
305	-	-			21,60	1,20	21,60	1,20	305
324	300	12			21,60	1,20	21,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 40 mm		Thickness 50 mm		Thickness 60 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
18	-	-	302,40	16,80					
22	15	1/2	280,80	15,60	194,40	10,80	129,60	7,20	22
28	20	3/4	259,20	14,40	194,40	10,80	129,60	7,20	28
35	25	1	194,40	10,80	172,80	9,60	108,00	6,00	35
42	32	1 1/4	194,40	10,80	129,60	7,20	108,00	6,00	42
48	40	1 1/2	194,40	10,80	129,60	7,20	86,40	4,80	48
54	-	-	172,80	9,60	108,00	6,00	86,40	4,80	54
60	50	2	129,60	7,20	108,00	6,00	86,40	4,80	60
64	-	-	129,60	7,20	86,40	4,80	86,40	4,80	64
70	-	-	108,00	6,00	86,40	4,80	86,40	4,80	70
76	65	2 1/2	108,00	6,00	86,40	4,80	86,40	4,80	76
89	80	3	86,40	4,80	86,40	4,80	72,00	1,20	89
102	-	-	86,40	4,80	76,80	1,20	62,40	1,20	102
108	-	-	86,40	4,80	72,00	1,20	60,00	1,20	108
114	100	4	86,40	4,80	72,00	1,20	60,00	1,20	114
127	-	-	72,00	1,20	60,00	1,20	48,00	1,20	127
133	-	-	72,00	1,20	60,00	1,20	48,00	1,20	133
140	125	5	64,80	1,20	57,60	1,20	48,00	1,20	140
156	-	-	60,00	1,20	48,00	1,20	38,40	1,20	156
159	-	-	60,00	1,20	48,00	1,20	43,20	1,20	159
168	150	6	55,20	1,20	48,00	1,20	38,40	1,20	168
194	-	-	43,20	1,20	38,40	1,20	31,20	1,20	194
219	200	8	38,40	1,20	31,20	1,20	28,80	1,20	219
245	-	-	26,40	1,20	24,00	1,20	21,60	1,20	245
259	-	-	24,00	1,20	21,60	1,20	21,60	1,20	259
273	250	10	21,60	1,20	21,60	1,20	21,60	1,20	273
305	-	-	21,60	1,20	16,80	1,20	14,40	1,20	305
324	300	12	16,80	1,20	14,40	1,20	14,40	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 70 mm		Thickness 80 mm		Thickness 100 mm		Internal Ø (mm)
			lm/pallet	lm/package	lm/pallet	lm/package	lm/pallet	lm/package	
22	15	1/2	86,40	4,80					
28	20	3/4	86,40	4,80	86,40	4,80			28
35	25	1	86,40	4,80	86,40	4,80			35
42	32	1 1/4	86,40	4,80	76,80	1,20	52,80	1,20	42
48	40	1 1/2	86,40	4,80	72,00	1,20	52,80	1,20	48
54	-	-	86,40	4,80	72,00	1,20	50,40	1,20	54
60	50	2	79,20	1,20	64,80	1,20	48,00	1,20	60
64	-	-	74,40	1,20	60,00	1,20	48,00	1,20	64
70	-	-	72,00	1,20	60,00	1,20	40,80	1,20	70
76	65	2 1/2	72,00	1,20	60,00	1,20	43,20	1,20	76
89	80	3	60,00	1,20	50,40	1,20	38,40	1,20	89
102	-	-	55,20	1,20	48,00	1,20	33,60	1,20	102
108	-	-	50,40	1,20	48,00	1,20	33,60	1,20	108
114	100	4	48,00	1,20	43,20	1,20	31,20	1,20	114
127	-	-	43,20	1,20	38,40	1,20	28,80	1,20	127
133	-	-	40,80	1,20	38,40	1,20	26,40	1,20	133
140	125	5	43,20	1,20	38,40	1,20	28,80	1,20	140
156	-	-	38,40	1,20	31,20	1,20	21,60	1,60	156
159	-	-	38,40	1,20	31,20	1,20	24,00	1,20	159
168	150	6	33,60	1,20	28,80	1,20	21,60	1,20	168
194	-	-	28,80	1,20	24,00	1,20	21,60	1,20	194
219	200	8	24,00	1,20	21,60	1,20	16,80	1,20	219
245	-	-	21,60	1,20	19,20	1,20	14,40	1,20	245
259	-	-	19,20	1,20	16,80	1,20	12,00	1,20	259
273	250	10	16,80	1,20	14,40	1,20	12,00	1,20	273
305	-	-	14,40	1,20	12,00	1,20	9,60	1,20	305
324	300	12	12,00	1,20	12,00	1,20	9,60	1,20	324

Internal Ø (mm)	DN (mm)	NPS (")	Thickness 120 mm		Internal Ø (mm)
			lm/pallet	lm/package	
54	-	-	38,40	1,20	54
60	50	2	38,40	1,20	60
64	-	-	33,60	1,20	64
70	-	-	31,20	1,20	70
76	65	2 1/2	31,20	1,20	76
89	80	3	28,80	1,20	89
102	-	-	24,00	1,20	102
108	-	-	24,00	1,20	108
114	100	4	24,00	1,20	114
127	-	-	21,60	1,20	127
133	-	-	21,60	1,20	133
140	125	5	21,60	1,20	140
156	-	-	21,60	1,20	156
159	-	-	21,60	1,20	159
168	150	6	16,80	1,20	168
194	-	-	14,40	1,20	194
219	200	8	12,00	1,20	219
245	-	-	12,00	1,20	245
259	-	-	12,00	1,20	259
273	250	10	9,60	1,20	273
305	-	-	9,60	1,20	305
324	300	12	9,60	1,20	324

Other dimensions or packaging units on request. The technical details are for information only. Please refer to the data sheet for complete current details.
www.knaufinsulation-ts.com

Individual pipe sections (packaging content = 1,20 m) are packed in foil.

- ☐ Cardboard packaging, 18 cardboard boxes on a pallet, dimensions cardboard: H x W x D = 1200 x 400 x 400 mm
- ☐ Cardboard packaging, 24 cardboard boxes on a pallet, dimensions Carton: H x W x D = 1200 x 400 x 300 mm

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Power-teK® PC 600

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POWER-TEK

PRODUCT INFO

DESCRIPTION

Power-teK PC 600 is a cut from block Rock Mineral Wool pipe section, **slit on one side for easier installation**, with density 80 kg/m³ and **specially designed to be used on pipe lines, where DN > 300 mm**.

Knauf Insulation Power-teK PC 600 is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- ✔ **Pipe insulation**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- ✔ **Where special sizes of pipe sections are needed**
- ✔ **For pipe lines where DN > 300 mm**

BENEFITS

- ✔ Suitable for special sizes of pipes
- ✔ Suitable for pipe lines with bigger diameters
- ✔ High maximum service temperature
- ✔ Multilayer installations possible
- ✔ Easy and fast installation
- ✔ Adapts to the unevenness of pipes
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305RPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications					Unit	Standard
Reaction to fire	–	A1					–	EN 13501-1
Thermal conductivity depending on mean temperature	ϑ	50	100	150	200	300	°C	EN ISO 8497
	λ	0,041	0,050	0,061	0,076	0,111	W/(m·K)	
Maximum service temperature	ST(+)	600					°C	EN ISO 18096
Water soluble chloride ions (AS quality)	–	≤ 10					ppm	EN ISO 12624
Density	ρ	ca. 80					kg/m³	EN ISO 18098
Water absorption	W_p	≤ 1,0					kg/m²	EN ISO 12623
Water vapour diffusion resistance	μ	1					–	EN 14303
Melting point of fibres	ϑ	≥ 1000					°C	DIN 4102-17
Silicone-free fibress	–	No emissions of lacquering disturbing substances					–	–
Designation code	–	MW–EN14303–T8–ST(+)600–WS1–CL10 (OD < 150 mm)					–	EN 14303
	–	MW–EN14303–T9–ST(+)600–WS1–CL10 (OD ≥ 150 mm)					–	EN 14303

The technical details are for information purposes only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

LAMELLA MAT

Power-teK® LM 450 ALU

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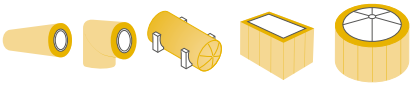
POWER-TEK

with ECOSE TECHNOLOGY

PRODUCT INFO



DESCRIPTION

Power-teK® LM 450 ALU is a lightweight Rock Mineral Wool mat, consisting of individual mineral wool strips (lamella) that are **bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil with maximum service temperature of 450 °C.** The fibres, which are primarily oriented vertically to the contact surface, provide high compressive strength. Consequently, a sub-construction structure is not required for round objects. At the same time, the mineral wool mat offers sufficient flexibility for easy handling and fast installation.

Knauf Insulation Power-teK® LM 450 ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- **To avoid sub-construction structure for round objects**
- **Where a light solution with high compressive strength is needed.**

BENEFITS

- High compressive strength
- Lightweight solution
- Protection against water vapour
- Good thermal conductivity
- One product for different sizes (universal solution)
- Optimal visual appearance after installation
- Flexibility for easy handling guaranteed
- Easy to cut
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305HPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications								Unit	Standard
Reaction to fire	–	A1 (A2-s1, d0 for 20 and 25 mm)								–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	50	100	150	200	250	300	400	450	°C	EN 12667
	λ	0,044	0,054	0,067	0,083	0,104	0,130	0,202	0,250	W/(m·K)	
Maximum service temperature	ST(+)	450								°C	EN ISO 18097
Service temperature aluminium facing	–	≤ 80								°C	–
Water soluble chloride ions (AS quality)	–	≤ 10								ppm	EN ISO 12624
Density	ρ	ca. 40								kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0								kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200								m	EN 12086
Melting point of fibres	ϑ	≥ 1000								°C	DIN 4102-17
Specific heat capacity	C_p	1030								J/(kgK)	EN ISO 10456
Silicone-free fibres	–	No emissions of lacquering disturbing substances								–	–
Designation code	–	MW-EN14303-T4-ST(+)450-WS1-MV2-CL10								–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width x **Thickness** (mm)	m²/PU**	Rolled m²/pallet	Length 2400 mm, m²/pallet
8000 x 500*** x **30**	8,00	120,00[A]	–
6000 x 500*** x **40**	6,00	90,00[A]	–
5000 x 500*** x **50**	5,00	75,00[A]	–
4000 x 500*** x **60**	4,00	60,00[A]	–
3500 x 500*** x **70**	3,50	52,50[A]	–
3000 x 500*** x **80**	3,00	45,00[A]	–
2400 x 500*** x **100**	–	–	28,80
2400 x 500*** x **120**	–	–	24,00

* Fixed lengths on request
** PU = packaging unit
(PU = 2 rolls with width 500 mm)
Loading unit = 1 pallet
Rolls/pallet A = up to 80 mm thickness 15 pcs.
*** 1000 mm width on request

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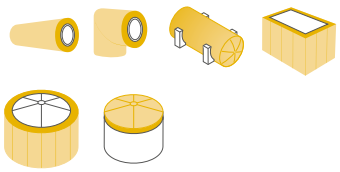
Power-teK® LM 550 ALU

with ECOSE TECHNOLOGY

PRODUCT INFO



DESCRIPTION

Power-teK® LM 550 ALU is a Rock Mineral Wool mat, consisting of individual mineral wool strips (lamella) that are **bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil with maximum service temperature of 550°C.** The fibres, which are primarily oriented vertically to the contact surface, provide high compressive strength; consequently, a sub-construction structure is not required for round objects. **Vertical orientation of the fibres also assures a pressure-resistant surface for flat-sloped tank roofs.** At the same time, the mineral wool mat offers sufficient flexibility for easy handling and fast installation.

Knauf Insulation Power-teK® LM 550 ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Tank roofs**
- **Pipe insulation**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- **To avoid the need for a sub-construction structure for round objects**
- **Where a 60 kg/m³ solution with high compressive strength is needed (up to 10 kPa – according to EN ISO 29469)**
- **Where a maximum service temperature of 550 °C is required.**

BENEFITS

- Keymark certificate
- Very high compressive strength
- Pressure-resistant surface
- Protection against water vapour
- Very good thermal conductivity
- One product for different sizes (universal solution)
- Optimal visual appearance after installation
- Flexibility for easy handling guaranteed
- Easy to cut
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305IPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications							Unit	Standard
Reaction to fire	–	A1							–	EN 13501-1
Thermal conductivity depending on temperature*	ϑ	50	100	200	300	400	500	550	°C	EN 12667
	λ	0,043	0,052	0,076	0,109	0,154	0,211	0,256	W/(m·K)	
Maximum service temperature*	ST(+)	550							°C	EN ISO 18097
Service temperature aluminium facing	–	≤ 80							°C	–
Water soluble chloride ions (AS quality)*	–	≤ 10							ppm	EN ISO 12624
Density	ρ	ca. 60							kg/m³	EN ISO 29470
Water absorption*	W_p	≤ 1,0							kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200							m	EN 12086
Melting point of fibres	ϑ	≥ 1000							°C	DIN 4102-17
Specific heat capacity	C_p	1030							J/(kgK)	EN ISO 10456
Silicone-free fibres	–	No emissions of lacquering disturbing substances							–	–
Compressive strength*	σ_{10}	≥ 10							kPa	EN ISO 29469
Insulation material code*	–	10.03.02.99.06							–	AGI Q 132
Designation code	–	MW–EN14303–T4–ST(+)550–CS(10)10–WS1–MV2–CL10							–	EN 14303

* Keymark monitored

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width x **Thickness** (mm)	m^2/PU**	Rolled m^2/pallet	Length 2400 mm, m^2/pallet
8000 x 500*** x **30**	8,00	120,00[A]	–
6000 x 500*** x **40**	6,00	90,00[A]	–
5000 x 500*** x **50**	5,00	75,00[A]	–
4000 x 500*** x **60**	4,00	60,00[A]	–
3500 x 500*** x **70**	3,50	52,50[A]	–
3000 x 500*** x **80**	3,00	45,00[A]	–
2400 x 500*** x **100**	–	–	28,80
2400 x 500*** x **120**	–	–	24,00

* Fixed lengths on request
** PU = packaging unit
(PU = 2 rolls with width 500 mm)
Loading unit = 1 pallet
Rolls/pallet[A] = up to 80 mm thickness 15 pcs.
*** 1000 mm width on request

Pipe diameters (mm)		**Recommended maximum insulation thickness – one layer (mm)**						
DN	**oD**	**30**	**40**	**50**	**60**	**70**	**80**	**≥ 90**
150	**168,3**	✓	✗					
200	**219,1**	✓	✓	✗				
250	**273,0**	✓	✓	✓	✗			
300	**323,9**	✓	✓	✓	✓	✗		
350	**355,6**	✓	✓	✓	✓	✓	✗	
400–2000	**406,4–2019**	✓	✓	✓	✓	✓	✓	
≥ 2000		✓	✓	✓	✓	✓	✓	✓

✓ possible

✗ possible with strength

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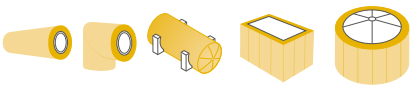
Power-teK® LM 640 ALU

with ECOSE TECHNOLOGY

PRODUCT INFO



DESCRIPTION

Power-teK® LM 640 ALU is a high resistant Rock Mineral Wool mat, consisting of individual mineral wool strips (lamella) that are **bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil with maximum service temperature of 640°C.** The fibres, which are primarily oriented vertically to the contact surface, provide high compressive strength; consequently, a sub-construction structure for round objects is not required. At the same time, the mineral wool mat offers sufficient flexibility for easy handling and fast installation.

Knauf Insulation Power-teK® LM 640 ALU is produced with **ECOSE® Technology**, a patented binder system, entirely based on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- **To avoid sub-construction structure**
- **Where a 80 kg/m³ solution with high compressive strength is needed**
- **Where maximum service temperature of 640 °C is required.**

BENEFITS

- High compressive strength
- Protection against water vapour
- Good thermal conductivity
- One product for different sizes (universal solution)
- Optimal visual appearance after installation
- Flexibility for easy handling guaranteed
- Easy to cut
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305WPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications							Unit	Standard
Reaction to fire	–	A1							–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	50	100	200	300	400	500	600	°C	EN 12667
	λ	0,044	0,050	0,068	0,096	0,134	0,182	0,238	W/(m·K)	
Maximum service temperature	ST(+)	640							°C	EN ISO 18097
Service temperature aluminium facing	–	≤ 80							°C	–
Water soluble chloride ions (AS quality)	–	≤ 10							ppm	EN ISO 12624
Density	ρ	ca. 80							kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0							kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200							m	EN 12086
Melting point of fibres	ϑ	≥ 1000							°C	DIN 4102-17
Specific heat capacity	C_p	1030							J/(kgK)	EN ISO 10456
Silicone-free fibres	–	No emissions of lacquering disturbing substances							–	–
Designation code	–	MW-EN14303-T4-ST(+)640-WS1-MV2-CL10							–	EN 14303

The technical details are for information purposes only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width x **Thickness** (mm)	m²/PU**	Rolled m²/pallet	Length 2400 mm, m²/pallet
8000 x 500*** x **30**	8,00	120,00[A]	–
6000 x 500*** x **40**	6,00	90,00[A]	–
5000 x 500*** x **50**	5,00	75,00[A]	–
4000 x 500*** x **60**	4,00	60,00[A]	–
3500 x 500*** x **70**	3,50	52,50[A]	–
3000 x 500*** x **80**	3,00	45,00[A]	–
2400 x 500*** x **100**	–	–	28,80
2400 x 500*** x **120**	–	–	24,00

* Fixed lengths on request
** PU = packaging unit
(PU = 2 rolls with width 500 mm)
Loading unit = 1 pallet
Rolls/pallet A = up to 80 mm thickness 15 pcs.
*** 1000 mm width on request

LAMELLA MAT

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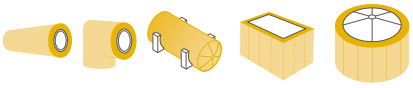
Power-teK® LM 700 ALU

with ECOSE TECHNOLOGY

PRODUCT INFO



DESCRIPTION

Power-teK® LM 700 ALU is a high resistant Rock Mineral Wool mat, consisting of individual mineral wool strips (lamella) that are bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil with maximum service temperature of 700 °C. The fibres, which are primarily oriented vertically to the contact surface, provide high compressive strength; consequently, a sub-construction structure is not required for round objects. At the same time, the mineral wool mat offers sufficient flexibility for easy handling and fast installation.

Knauf Insulation Power-teK® LM 700 ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- **To avoid sub-construction structure**
- **Where a 95 kg/m³ solution with high compressive strength is needed**
- **Where maximum service temperature of 700 °C is required.**

BENEFITS

- High compressive strength
- Protection against water vapour
- Good thermal conductivity
- One product for different sizes (universal solution)
- Optimal visual appearance after installation
- Flexibility for easy handling guaranteed
- Easy to cut
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305WPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications								Unit	Standard
Reaction to fire	-	A1								–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	50	100	200	300	400	500	600	700	°C	EN 12667
	λ	0,044	0,050	0,068	0,096	0,134	0,182	0,238	0,304	W/(m·K)	
Maximum service temperature	ST(+)	700								°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80								°C	–
Water soluble chloride ions (AS quality)	-	≤ 10								ppm	EN ISO 12624
Density	ρ	ca. 95								kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0								kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200								m	EN 12086
Melting point of fibres	ϑ	≥ 1000								°C	DIN 4102-17
Specific heat capacity	C_p	1030								J/(kgK)	EN ISO 10456
Silicone-free fibres	-	No emissions of lacquering disturbing substances								–	–
Designation code	-	MW-EN14303-T4-ST(+)700-WS1-MV2-CL10								–	EN 14303

The technical details are for information purposes only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width x **Thickness** (mm)	m²/PU**	Rolled m²/pallet	Length 2400 mm, m²/pallet
8000 x 500*** x **30**	8,00	120,00[A]	–
6000 x 500*** x **40**	6,00	90,00[A]	–
5000 x 500*** x **50**	5,00	75,00[A]	–
4000 x 500*** x **60**	4,00	60,00[A]	–
3500 x 500*** x **70**	3,50	52,50[A]	–
3000 x 500*** x **80**	3,00	45,00[A]	–
2400 x 500*** x **100**	–	–	28,80
2400 x 500*** x **120**	–	–	24,00

* Fixed lengths on request
** PU = packaging unit
(PU = 2 rolls with width 500 mm)
Loading unit = 1 pallet
Rolls/pallet A = up to 80 mm thickness 15 pcs.
*** 1000 mm width on request

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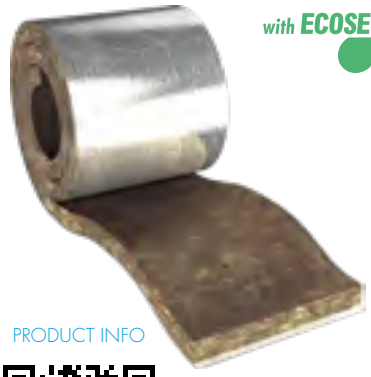
Power-teK® CM 450 ALU



with ECOSE TECHNOLOGY

PRODUCT INFO

DESCRIPTION

Power-teK® CM 450 ALU is a highly flexible yet semi-firm rock mineral wool mat based on a special fibre orientation.
On one side it is bonded to a tear-resistant, glass-mesh reinforced aluminium foil. When installed on convex surfaces it offers a very good compromise of being flexible for installation and a very good level of stiffness of the final installation. When used on pipes (≥ DN 300), it provides the perfect nice round surface.

Knauf Insulation Power-teK® CM 450 ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

BENEFITS

- Highly flexible
- Provides firm and durable installation surface
- Easy to cut
- Optimised packaging (less waste)
- Protection against water vapour
- Nice visual appearance of final application
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305HPCPR

CERTIFICATES

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**
- **Irregular shapes**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation, where:

- **The best compromise between flexibility and rigidity is needed**
- **Higher mechanical resistance is required**
- **The need for a sub-construction structure for round objects must be avoided**

PERFORMANCE

Product properties	Reference	Description/specifications								Unit	Standard
Reaction to fire	–	A1								–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	50	100	150	200	250	300	400	450	°C	EN 12667
	λ	0,044	0,054	0,067	0,083	0,104	0,130	0,202	0,250	W/(m·K)	
Maximum service temperature	ST(+)	450								°C	EN ISO 18097
Service temperature aluminium facing	–	≤ 80								°C	–
Water soluble chloride ions (AS quality)	–	≤ 10								ppm	EN ISO 12624
Density	ρ	ca. 50								kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0								kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	S_d	≥ 200								m	EN 12086
Melting point of fibres	ϑ	≥ 1000								°C	DIN 4102-17
Specific heat capacity	C_p	1030								J/(kgK)	EN ISO 10456
Silicone-free fibres	–	No emissions of lacquering disturbing substances								–	–
Designation code	–	MW–EN14303–T3–ST(+)450–WS1–MV2–CL10								–	EN 14303

The technical details are for information purposes only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length x Width* x **Thickness** (mm)	mats/pallet	m²/pallet
3000 x 500* x **80**	42	63,00
2500 x 500* x **100**	42	52,50
2500 x 500* x **120**	42	52,50

Loading unit = 1 pallet
* 600 mm width on request

RECOMMENDATION FOR THE USE OF POWER-TEK CM 450 ALU ON THE DIFFERENT WIDTHS OF PIPE LINES

	Insulation thickness [mm]
Pipe diameter DN	**80/100/120**
> 2.000	✓
300 - 2.000	✗

✓ Simple installation
✗ Installation with slightly increased effort

MAT

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Power-teK® CM 620 ALU

with ECOSE TECHNOLOGY

PRODUCT INFO

DESCRIPTION

Power-teK® CM 620 ALU is a highly flexible yet firm Rock Mineral Wool mat based on a special fibre orientation. On one side it is bonded to a tear-resistant, glass-mesh reinforced aluminium foil. When installed on convex surfaces it offers a very good compromise of being flexible for installation and a very good level of compression resistance of the final installation, thus providing good protection against outside impact. When used on pipes (> DN 300), it provides the perfect nice round surface.

Knauf Insulation Power-teK® CM 620 ALU is produced with **ECOSE® Technology,** a patented binder system, based entirely on renewable raw materials.

BENEFITS

- Highly flexible
- Provides firm and durable installation surface
- Easy to cut
- Optimised packaging (less waste)
- Protection against water vapour
- Nice visual appearance of final application
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305BRCPR

CERTIFICATES

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**
- **Irregular shapes**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation, where:

- **The best compromise between flexibility and rigidity is needed**
- **Higher mechanical resistance is required**
- **The need for a sub-construction structure for round objects must be avoided**
- **Where a 70 kg/m³ solution with high compressive strength is needed (up to 10 kPa – according to EN ISO 29469)**
- **Where a maximum service temperature of 620 °C is required**

PERFORMANCE

Product properties	Reference	Description/specifications								Unit	Standard
Reaction to fire	-	A1								–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	50	100	200	300	400	500	600	620	°C	EN 12667
	λ	0,043	0,052	0,075	0,107	0,150	0,200	0,253	0,265	W/(m·K)	
Maximum service temperature	ST(+)	620								°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80								°C	–
Water soluble chloride ions (AS quality)	-	≤ 10								ppm	EN ISO 12624
Density	ρ	ca. 70								kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0								kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	S_d	≥ 200								m	EN 12086
Melting point of fibres	ϑ	≥ 1000								°C	DIN 4102-17
Specific heat capacity	C_p	1030								J/(kgK)	EN ISO 10456
Compressive strength	σ_{10}	≥ 10								kPa	EN ISO 29469
Silicone-free fibres	-	No emissions of lacquering disturbing substances								–	–
Designation code	-	MW–EN14303–T4-ST(+)620 –CS(10)10–WS1–MV2–CL10								–	EN 14303

The technical details are for information purposes only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length x Width* x **Thickness** (mm)	mats/pallet	m²/pallet
2400 x 500 x **50**	48	57,60
2400 x 500 x **60**	40	48,00
2400 x 500 x **80**	30	36,00
2400 x 500 x **100**	24	28,80
2400 x 500 x **120**	20	24,00

Mat = 1,2 m²
Loading unit = 1 pallet
*600 mm width on request

RECOMMENDATION FOR THE USE OF POWER-TEK CM 620 ALU ON THE DIFFERENT WIDTHS OF PIPE LINES

	Insulation thickness [mm]		
Pipe diameter DN	**50**	**60**	**80/100/120**
> 2.000	✓	✓	✓
400 - 2.000	✓	✓	✗
200-400*	✓	✓	
160	✓	✗	
125	✗		

✓ Simple installation ✗ Installation with slightly increased effort

* Diameters: 200, 250, 300, 350, 400

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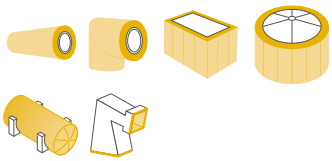
Power-teK® FM 620/640/660

PRODUCT INFO



DESCRIPTION

Power-teK® FM 620/640/660 is a non-combustible Rock Mineral Wool mat. As a universal solution for lining or multi-layer insulations, depending on the density, it is available for **high-temperature applications** with maximum service temperatures of up to 660 °C.

Knauf Insulation Power-teK® FM 620/640/660 are produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**
- **Irregular shapes (filling the gaps)**
- **Pillows and mattresses for high temperatures**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- **In case of high-temperature applications**
- **When additional flexibility is required (also used as filling material)**

BENEFITS

- Flexible, pressure resistant and dimensionally stable
- Adaptable for irregular shapes, fittings, flanges
- Easy to use for filling the gaps
- Easy to cut and form
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305DPCPR for FM 620
www.dopki.com/T4305EPCPR for FM 640
www.dopki.com/T4305FPCPR for FM 660

CERTIFICATES

Valid only for FM 640

PERFORMANCE

Product properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	620/640/680 (see table below)	°C	EN ISO 18097
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature									Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))									r (kPa s/m²)	-
			50	100	200	300	400	500	600	640	660		
FM 620	ca.70	620	0,040	0,049	0,069	0,095	0,132	0,200	0,250	–	–	≥ 20	MW–EN14303–T2–ST(+)620–WS1–CL10
FM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	≥ 40	MW–EN14303–T5–ST(+)640–WS1–CL10
FM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210	≥ 50	MW–EN14303–T5–ST(+)660–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667									EN 29053	EN 14303

FELT MAT

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Power-teK® FM 620/640/660 ALU

DESCRIPTION

Power-teK® FM 620/640/660 ALU is a non-combustible Rock Mineral Wool mat, **bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil which acts as a water vapour barrier**. As a universal solution for lining or multi-layer insulations, depending on the density, it is available **for high-temperature applications** with maximum service temperatures of up to 660 °C.

Knauf Insulation Power-teK® FM 620/640/660 ALU are produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

BENEFITS

- Protection against water vapour
- Nice visual appearance of final application
- Flexible, pressure resistant and dimensionally stable
- Adaptable for irregular shapes, fittings, flanges
- Easy to cut and form
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305DPCPR for FM 620
www.dopki.com/T4305EPCPR for FM 640
www.dopki.com/T4305FPCPR for FM 660

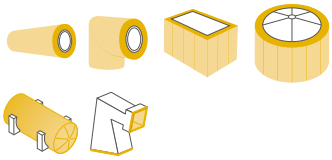
PRODUCT INFO

APPLICATION

- **Pipe insulation**
- **Pipe insulation elbows**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Boilers**
- **Irregular shapes**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- **In case of high-temperature applications**
- **When additional flexibility is required (also used as filling material)**
- **Where protection against water vapour is required**
- **When a nice visual appearance is needed**



CERTIFICATES

Valid only for FM 640 ALU

PERFORMANCE

Product properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	620/640/680 (see table below)	°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80	°C	–
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Water vapour diffusion equivalent air layer thickness ALU	S_d	≥ 200	m	EN 12086
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature									Longitudinal air flow resistance	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))									r (kPa s/m²)	-
			50	100	200	300	400	500	600	640	660		
FM 620	ca.70	620	0,040	0,049	0,069	0,095	0,132	0,200	0,250	–	–	≥ 20	MW–EN14303–T2–ST(+)620–WS1–CL10
FM 640	ca.80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	≥ 40	MW–EN14303–T5–ST(+)640–WS1–CL10
FM 660	ca.100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210	≥ 50	MW–EN14303–T5–ST(+)660–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667									EN 29053	EN 14303

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PACKAGING SPECIFICATIONS FOR POWER-TEK® FM 620/640/660 AND POWER-TEK® FM 620/640/660 ALU

Power-teK® FM 620/640/660

Length* x Width* x **Thickness** (mm)	m^2/PU	m^2/pallet	product Power-teK FM
6000 x 1000 x **40**	6,00	126,00	620, 640
5000 x 1000 x **50**	5,00	105,00	620, 640
4000 x 1000 x **50**	4,00	84,00	660
4000 x 1000 x **60**	4,00	84,00	620
3500 x 1000 x **60**	3,50	73,50	640
3500 x 1000 x **70**	3,50	73,50	620, 640
3000 x 1000 x **60**	3,00	63,00	660
3000 x 1000 x **100**	3,00	63,00	620
2500 x 1000 x **70/80**	2,50	52,50	660
2500 x 1000 x **100**	2,50	52,50	640
2000 x 1000 x **100**	2,00	42,00	660

Power-teK® FM 620/640/660 ALU

Length* x Width* x **Thickness** (mm)	m^2/PU	m^2/pallet	product Power-teK FM ALU
7000 x 1000 x **30***	7,00	147,00	660
6000 x 1000 x **40**	6,00	126,00	620
5000 x 1000 x **50**	5,00	105,00	620, 640
4000 x 1000 x **60**	4,00	84,00	620
3500 x 1000 x **60**	3,50	73,50	640
3500 x 1000 x **70**	3,50	73,50	620, 640
3000 x 1000 x **60**	3,00	63,00	660
3000 x 1000 x **80/100**	3,00	63,00	620
2500 x 1000 x **80**	2,50	52,50	660
2500 x 1000 x **100**	2,50	52,50	640

Packaging:
Rolls/pallet = 21 pcs.
Loading unit = 1 pallet

BOARD

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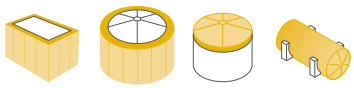
Power-teK® BD 450-700

PRODUCT INFO



DESCRIPTION

Power-teK® BD is a Rock Mineral Wool insulation board, optimised for high-temperature applications and equipped with excellent heat conductivity values, it is used as a universal solution for level and large surfaces.
Various insulation boards are available with densities from 50 to 150 kg/m³ as well as for maximum temperatures of up to 700 °C.

Knauf Insulation Power-teK® BD 450-700 are produced with **ECOSE® Technology**, a patented binder system, entirely based on renewable raw materials.

APPLICATION

- ✔ **Furnaces & other equipment**
- ✔ **Tank walls & heat storage**
- ✔ **Tank roofs**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- ✔ **High maximum service temperatures are required (optimised for high application temperatures).**

BENEFITS

- ✔ Suitable for high-temperature applications
- ✔ Installation without sub-structure
- ✔ Easy to handle (each piece)
- ✔ Easy to cut to different forms
- ✔ Easier multi-layer insulation
- ✔ Variety of versions and thicknesses
- ✔ Rigid, flat, stable form
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305LPCPR for BD 450
www.dopki.com/T4305TPCPR for BD 550
www.dopki.com/T4305OPCPR for BD 620
www.dopki.com/T4305PPCPR for BD 640
www.dopki.com/T4305QPCPR for BD 660
www.dopki.com/T4305BPCPR for BD 680
www.dopki.com/T4305CPCPR for BD 700

CERTIFICATES

Valid only for BD 660

ASTM C612-TYPE IV-A

Valid only for BD 700

ASTM C612-TYPE IV

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	450 to 700 °C (see table below)	°C	EN ISO 18097
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303/EN 13162
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature														Longit. air flow res.	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))														r (kPa s/m²)	-
	(kg/m³)	°C	10	50	100	150	200	250	300	400	450	500	550	600	650	700		
BD 450	ca.50	450	0,037	0,041	0,048	0,058	0,071	0,088	0,108	0,157	0,186		–	–	–	–	≥ 10	MW–EN14303–T5–ST(+)450–WS1–CL10
BD 550	ca.60	550	–	0,040	0,046	–	0,067	–	0,094	0,130	–	0,176	0,204	–	–	–	≥ 15	MW–EN14303–T5–ST(+)550–WS1–CL10
BD 620	ca.70	620	–	0,039	0,046	–	0,065	–	0,089	0,120	–	0,160	–	0,209	–	–	≥ 15	MW–EN14303–T5–ST(+)620–WS1–CL10
BD 640	ca.80	640	–	0,040	0,049	–	0,067	–	0,092	0,123	–	0,163	–	0,215	–	–	≥ 15	MW–EN14303–T5–ST(+)640–WS1–CL10
BD 660	ca.100	660	–	0,039	0,044	–	0,060	–	0,078	0,102	–	0,132	–	0,169	–	–	≥ 25	MW–EN14303–T5–ST(+)660–WS1–CL10
BD 680	ca.120	680	–	0,040	0,045	–	0,059	–	0,075	0,096	–	0,121	–	0,153	0,180	–	≥ 30	MW–EN14303–T5–ST(+)680–WS1–CL10
BD 700	ca.150	700	–	0,041	0,045	–	0,059	–	0,075	0,095	–	0,119	–	0,147	–	0,178	≥ 60	MW–EN14303–T5–ST(+)700–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667														EN 29053	EN 14303

Note: For packaging details please see page 82.

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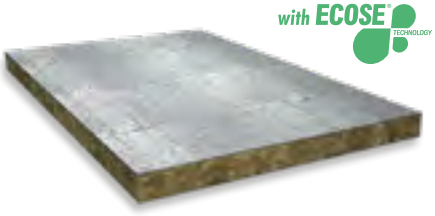
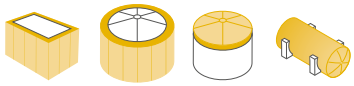
Power-teK® BD 450-700 ALU



PRODUCT INFO



DESCRIPTION

Power-teK® BD is a Rock Mineral Wool insulation board, **bonded on one side to a tear-resistant, glass mesh reinforced aluminium foil, which acts as a water vapour barrier**. **Optimised for high-temperature applications** and equipped with excellent heat conductivity values, it is used as a universal solution for level and large surfaces. Various insulation boards are available with densities from 50 to 150 kg/m³ as well as for maximum temperatures of up to 700 °C.

Knauf Insulation Power-teK® BD 450-700 ALU are produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Tank roofs**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **High maximum service temperatures are required (optimised for high application temperatures)**
- **Protection against water vapour is required**
- **A nice visual appearance is required**

BENEFITS

- Suitable for high-temperature applications
- Nice visual appearance of final application
- Protection against water vapour
- Installation without sub-structure
- Easy to handle (each piece)
- Easy to cut to different forms
- Easier multi-layer insulation
- Variety of versions and thicknesses
- Rigid, flat, stable form
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305LPCPR for BD 450
www.dopki.com/T4305TPCPR for BD 550
www.dopki.com/T4305OPCPR for BD 620
www.dopki.com/T4305PPCPR for BD 640
www.dopki.com/T4305QPCPR for BD 660
www.dopki.com/T4305BPCPR for BD 680
www.dopki.com/T4305CPCPR for BD 700

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature	ST(+)	450 to 700 °C (see table below)	°C	EN ISO 18097
Service temperature aluminium facing	-	≤ 80	°C	–
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303/EN 13162
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Melting point of fibres	-	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

	Density	MST	Thermal conductivity depending on temperature														Longit. air flow res.	Designation code
	ρ (kg/m³)	ST(+) (°C)	λ (W/(mK))														r (kPa s/m²)	-
	(kg/m³)	°C	10	50	100	150	200	250	300	400	450	500	550	600	650	700		
BD 450	ca.50	450	0,037	0,041	0,048	0,058	0,071	0,088	0,108	0,157	0,186		–	–	–	–	≥ 10	MW–EN14303–T5–ST(+)450–WS1–CL10
BD 550	ca.60	550	–	0,040	0,046	–	0,067	–	0,094	0,130	–	0,176	0,204	–	–	–	≥ 15	MW–EN14303–T5–ST(+)550–WS1–CL10
BD 620	ca.70	620	–	0,039	0,046	–	0,065	–	0,089	0,120	–	0,160	–	0,209	–	–	≥ 15	MW–EN14303–T5–ST(+)620–WS1–CL10
BD 640	ca.80	640	–	0,040	0,049	–	0,067	–	0,092	0,123	–	0,163	–	0,215	–	–	≥ 15	MW–EN14303–T5–ST(+)640–WS1–CL10
BD 660	ca.100	660	–	0,039	0,044	–	0,060	–	0,078	0,102	–	0,132	–	0,169	–	–	≥ 25	MW–EN14303–T5–ST(+)660–WS1–CL10
BD 680	ca.120	680	–	0,040	0,045	–	0,059	–	0,075	0,096	–	0,121	–	0,153	0,180	–	≥ 30	MW–EN14303–T5–ST(+)680–WS1–CL10
BD 700	ca.150	700	–	0,041	0,045	–	0,059	–	0,075	0,095	–	0,119	–	0,147	–	0,178	≥ 60	MW–EN14303–T5–ST(+)700–WS1–CL10
Standard	EN ISO 29470	EN ISO 18097	EN 12667														EN 29053	EN 14303

Note: For packaging details please see page 82.

PACKAGING DETAILS FOR POWER-TEK® BD 450-700 AND POWER-TEK® BD 450-700 ALU

Power-teK® BD 450/ALU

Length* x Width* x **Thickness*** (mm)	m²/PU**	Bundles/pallet	m²/pallet
1200 x 625 x **50**	7,50	15	112,50
1200 x 625 x **60**	6,00	15	90,00
1200 x 625 x **80**	4,50	15	67,50
1200 x 625 x **100**	3,75	15	56,25
1200 x 625 x **120**	3,00	15	45,00
1200 x 625 x **130**	3,00	15	45,00
1200 x 625 x **140**	2,25	18	40,50

* Further dimensions and special versions with one-sided glass fibre fabric facing on request. Maximum possible thickness 250 mm.
** PU = packaging unit = 1 package of boards Minimum order quantity 2.5 tons/thickness, however only complete pallets.

Power-teK® BD 620, 680/ALU

Length* x Width* x **Thickness*** (mm)	m²/PU**	Bundles/pallet	m²/pallet
1000 x 600 x **30**	–	–	–
1000 x 600 x **40**	4,80	16	58,80
1000 x 600 x **50**	4,20	14	58,80
1000 x 600 x **60**	3,60	14	50,40
1000 x 600 x **80**	2,40	16	38,40
1000 x 600 x **100**	2,40	12	28,80

* Further dimensions on request. Maximum possible thickness 250 mm.
** PU = packaging unit = 1 package of boards Loading unit = 1 pallet

Power-teK® BD 550,640,660/ALU

Length* x Width* x **Thickness*** (mm)	m²/PU**	Bundles/pallet	m²/pallet
1000 x 600 x **30**	4,80	20	96,00
1000 x 600 x **40**	4,20	18	75,60
1000 x 600 x **50**	3,60	18	64,80
1000 x 600 x **60**	2,40	20	48,00
1000 x 600 x **80**	2,40	16	38,40
1000 x 600 x **100**	1,80	16	28,80

* Further dimensions on request. Maximum possible thickness 250 mm.
** PU = packaging unit = 1 package of boards Loading unit = 1 pallet

Power-teK® BD 700/ALU

Length* x Width* x **Thickness*** (mm)	m²/PU**	Bundles/pallet	m²/pallet
1000 x 600 x **30**	4,80	20	96,00
1000 x 600 x **40**	4,50	16	72,00
1000 x 600 x **50**	2,88	20	57,60
1000 x 600 x **60**	3,00	16	48,00
1000 x 600 x **80**	1,80	20	36,00
1000 x 600 x **100**	1,20	26	31,20

* Further dimensions on request. Maximum possible thickness 250 mm.
** PU = packaging unit = 1 package of boards Loading unit = 1 pallet

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TANK INSULATION SOLUTIONS

Knauf Insulation solution for tanks and heat storages insulation meets diverse regulatory requirements of different countries while ensuring superior thermal performance, costs- and time efficiency.

Two key products are recommended to ensure complete thermal insulation of the tank. **Power-teK RL 220** light Glas Mineral Wool roll for tank envelope insulation and specialized Power-teK BD Rock Mineral Wool boards in different densities for roof insulation. Products can be combined to ensure proper solution for every request.

Tank Envelope Insulation

With **Power-teK RL 220** insulation thicknesses up to 600 mm insulation thickness can be realised in only two layers, which means fast and inexpensive installation.

Tank Roof Boards

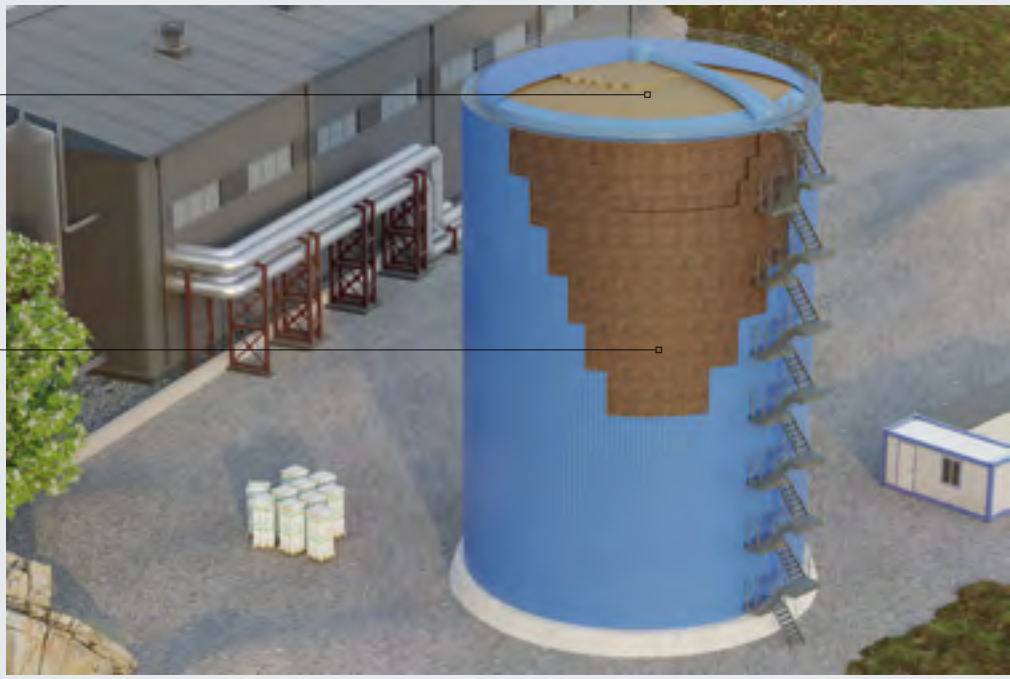
In accordance with specifications or legal regulations various set ups of roof insulation can be realized. The range of roof boards with different characteristics can be seen as a toolbox to suit individual design needs, such as load distribution, thermal insulation performance etc.

PERFECT COMBINATION FOR DIVERSE NEEDS:

- big thicknesses available
- less layers
- light weight and flexible mats
- perfect compressive strength of roof boards

Power-teK BD 772/775/776/778
as a roof top insulation

Power-teK RL 220 for tank envelope insulation



Overview of main features of Power-teK tank roof top boards

With these boards various approaches can be satisfied; however, in case of specialized demand regarding the roof insulation please contact our technical service for advise or special products.

	Compressive strength	Density	Thicknesses range	Format
	(kPa)	(kg/m³)	(mm)	Length*Width (mm)
Power-teK BD 772	20 kPa	100	50-250	1000 x 600
Power-teK BD 775	50 kPa	150	50-140	1000 x 600
Power-teK BD 776	60 kPa	150	50-200	1000 x 600
Power-teK BD 778	80 kPa	170	30	2400 x 1200

BOARD

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Power-teK® BD 772/775/776/778

PRODUCT INFO

DESCRIPTION

Power-teK® BD 772/775/776/778 is a Rock Mineral Wool insulation board with high compressive strength and optimised for use on tank roofs, where walkability for maintenance purposes is also needed. For use on high-temperature tanks, the product also features excellent thermal conductivity values.

APPLICATION

✔ **Tank roofs**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation, where:

✔ **Higher compressive strength/walkability for maintenance purposes is required.**

BENEFITS

- ✔ High compressive strength / walkability for maintenance purposes
- ✔ Cut to correct dimensions based on customers' needs
- ✔ Easy to handle and install (puzzles)
- ✔ Installation without sub-structure
- ✔ Rigid, flat, stable form

DECLARATION OF PERFORMANCE

www.dopki.com/T4309YPCPR for BD 775
www.dopki.com/T4238KPCPR for BD 776

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Maximum service temperature*	ST(+)	450	°C	EN ISO 18097
Water soluble chloride ions (AS quality)*	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com
* only BD 775

	Density	Thermal conductivity depending on temperature							Longit. air flow res.	Compressive strength	Designation code
	ρ (kg/m³)	λ (W/(mK))							r (kPa s/m²)	σ_{10} (kPa)	-
		50	100	150	200	300	400	450			
BD 775	ca. 150	0,042	0,046	0,052	0,058	0,073	0,095	0,108	≥ 50	≥ 50	MW-EN14303-T5-ST(+)450-CS(10)50-WS1-CL10
BD 776	ca. 140	0,042	0,046	0,052	0,058	0,075	0,098	0,111	-	≥ 70	MW-EN 14303-T5-ST(+)450-CS(10)70-WS1
BD 772	ca.100	λ at 10 °C = 0,036 W/(mK)							≥ 25	≥ 20	MW-EN13162-T5-CS(10)20-WS1
BD 778	ca. 170	λ at 10 °C = 0,040 W/(mK)							≥ 50	≥ 80	MW-EN13162-T5-CS(10)80-WS1
Standard	EN ISO 29470	EN 12667							EN 29053	EN ISO 29469	EN 13162/ EN 14303

PACKAGING SPECIFICATIONS

Power-teK BD 775

Length* x Width* x **Thickness*** (mm)	m²/PU**	Bundles/ pallet	m²/pallet
1000 x 600 x **50**	3,00	18	54,00
1000 x 600 x **60**	2,40	20	48,00
1000 x 600 x **80**	1,80	20	36,00
1000 x 600 x **100**	1,20	24	28,80
1000 x 600 x **120**	1,20	20	24,00
1000 x 600 x **140**	1,20	18	21,60

* Further dimensions and special versions with one-sided glass fibre fabric lamination on request. Maximum possible thickness 250 mm.
** PU = packaging unit = 1 package of boards. Minimum order quantity 2.5 tons/ thickness, however only complete pallets.
Other dimensions available on request.

Power-teK BD 772

Standard formats: 1000 x 600 x 50-250;
packaging specification available on request.

Power-teK BD 776

Standard formats: 1000 x 500 x 50-200;
packaging specification available on request.

Power-teK BD 778

Standard format: 2400 x 1200 x 30;
packaging specifications available on request.

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ROLL

Power-teK® RL 220

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POWER-TEK

PRODUCT INFO

VIDEO

DESCRIPTION

Power-teK® RL 220 is a lightweight Glass Mineral Wool roll. With optimised thicknesses achieving up to 300 mm per layer, Power-teK® RL 220 delivers a cost-effective solution using a minimised number of layers. It is used for insulation of heat storage tanks and tank walls with limited demand for service temperatures, but requiring strong thermal performance throughout thicker layers of insulation. This kind of insulation is usually used outdoors underneath additional cladding (weather protection), e.g. as heat buffer in district heating systems.

Knauf Insulation Power-teK® RL 220 is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Tank walls & heat storage, tanks/vessels**

The product is recommended for thermal insulation of the defined applications within technical insulation:

- **Where a lightweight insulation solution is required**
- **When high insulation thickness needs to be installed (e.g. 500mm in only 2 layers)**
- **Fast installation is required**

BENEFITS

- Lightweight solution
- Thickness up to 300 mm
- Optimised logistics (compressed packaging)
- Easy and fast handling
- Highly flexible
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4222MPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications				Unit	Standard
Reaction to fire	-	A1				–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	10	50	100	150	°C	EN 12667
	λ	0,034	0,042	0,054	0,067	W/(m·K)	
Maximum service temperature	ST(+)	220				°C	EN ISO 18097
Density	ρ	ca. 22				kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0				kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1				–	EN 14303
Longitudinal air flow resistance	r	≥ 5				kPa·s/m²	EN 29053
Silicone-free fibres	-	No emissions of lacquering disturbing substances				–	–
Designation code	-	MW- EN 14303-T2-ST(+)220-WS				–	EN 14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness*** (mm)	m²/roll	Bundles/pallet	m²/pallet	kg/packaging unit	kg/m²
6000 x 1200 x **80**	7,2 0	24	172,80	12,10	1,68
5400 x 1200 x **100**	6,48	24	155,52	11,70	1,80
4500 x 1200 x **120**	5,4 0	24	129,60	11,66	2,16
3900 x 1200 x **140**	4,68	24	112,32	11,79	2,52
3600 x 1200 x **150**	4,32	24	103,68	11,66	2,70
3600 x 1200 x **160**	4,32	24	103,68	12,44	2,88
2700 x 1200 x **200**	3,24	24	77,76	11,66	3,60
2900 x 1200 x **250**	3,48	18	62,64	15,66	4,50
2400 x 1200 x **300**	2,88	18	51,84	15,55	5,40

* Further dimensions on request.

CASE STUDY

INSULATION OF HEAT STORAGE TANKS with Power-teK® RL 220

Küssnacht

Schwyz

In 2020, Bilfinger Industrial Services Schweiz AG refurbished two district heating storage systems in Schwyz and Küssnacht for the regional and future-oriented Swiss energy suppliers AGRO Energie Schwyz AG and AGRO Energiezentrum Rigi AG. An insulation layer totaling 400 mm (2x 200 mm) mineral wool from Knauf Insulation was installed like a thick wool sweater. **Both heat storage tanks walls were insulated with Power-teK® RL 220**, a Mineral Wool roll that, in addition to its good insulating properties, is also characterized by its low weight, which makes processing easier.

PROJECTS SPECIFICATION:

	Küssnacht	Schwyz
Storage height with attic	44 m	52 m
Storage diameter including insulation	25 m	30 m
Roof insulation 3-layer overall insulation	1,500 m²	2,200 m²
Sheath insulation mineral wool	2 x 200 mm	2 x 200 mm
Overall insulation	7,000 m²	11,000 m²
Trapezoidal sheet metal cladding overall	4,200 m²	5,600 m²

Power-teK® RL 220
(technical data on page 84)

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Power-teK® LW STD

PRODUCT INFO

DESCRIPTION

Power-teK® LW STD is a loose Rock Mineral Wool without binder, used **as universal solution for lining insulation in cavities (confined spaces) in various high-temperature and fire protection applications.**

APPLICATION

- **Cavities (confined spaces)**
- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Irregular shapes**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation where:

- **A universal solution for filling cavities (confined spaces) in furnaces, tank walls and heat storage tanks is needed**
- **A solution for insulating irregular shapes is required**

BENEFITS

- Easy to fill and reach confined spaces, irregular shapes
- No binder
- Odourless
- Flexible

DECLARATION OF PERFORMANCE

www.dopki.com/T4305XPCPR
(LW STD from Novi Marof)
www.dopki.com/T4309XPCPR
(LW STD from Škofja Loka)

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications							Unit	Standard
Reaction to fire	–	A1							–	EN 13501-1
Thermal conductivity depending on temperature*	ϑ	50	100	200	300	400	500	600	°C	EN 12667
	λ	0,041	0,049	0,067	0,090	0,120	0,156	0,205	W/(m·K)	
Maximum service temperature*	ST(+)	660							°C	EN ISO 18097
Water soluble chloride ions (AS quality)	–	≤ 10							ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0							kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1							–	EN 14303
Melting point of fibres	ϑ	≥ 1000							°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances							–	–
Specific heat capacity	C_p	1030							J/(kgK)	EN ISO 10456

* Measured at 100 kg/m³
The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

kg/bag	bags/pallet
10	24

* PU = packaging unit (PU = 1 foil bag/roll, other packaging sizes on request)
Loading unit = 1 pallet

LOOSE WOOL

Power-teK® LW CRY

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PRODUCT INFO

DESCRIPTION

Power-teK® LW CRY is a loose Rock Mineral Wool without binder for **cryogenic applications**.
It has an especially low organic content (< 0.3 weight-%), is manufactured in compliance with the requirements of the AGI worksheet Q 118 for insulation of air separation plant and fulfils the requirements of Factory Standard 152-1 of Linde AG.

APPLICATION

✔ **Cryogenic applications**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation, where:

✔ **A solution for filling cavities (confined spaces) in cryogenic applications is needed**
✔ **A solution for insulating irregular shapes in cryogenic applications is required**

BENEFITS

✔ Compliant with all relevant standards for use in cryogenic applications
✔ Easy to fill and reach confined spaces, irregular shapes
✔ Extremely good performing at low temperatures
✔ No binder
✔ Odourless
✔ Flexible

DECLARATION OF PERFORMANCE

www.dopki.com/T4309WPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications					Unit	Standard
Reaction to fire	–	A1						EN 13501-1/ EN 13820
Thermal conductivity depending on temperature	ϑ	-180	-100	-50	0	50	°C	EN 12667
	λ	0,014	0,021	0,026	0,033	0,041	W/(m·K)	
Water soluble chloride ions (AS quality)*	–	≤ 10					ppm	EN ISO 12624
Water vapour diffusion resistance	μ	1					–	EN 14303
Melting point of fibres	ϑ	≥ 1000					°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances					–	–
Specific heat capacity	C_p	1030					J/(kgK)	EN ISO 10456

* On request.
The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

kg/PU*	Bags/pallet
10	35

* PU = packaging unit (PU = 1 foil bag, other packaging sizes on request)
Loading unit = 1 pallet

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Power-teK® LW 020

PRODUCT INFO

DESCRIPTION

Power-teK® LW 020 are loose Rock Mineral Wool flocks made of virgin mineral wool, suitable **for insulation of confined spaces**. The average flock size of Power-teK LW 020 is 20 mm. The product is specially designed to be installed using blowing machines. The fibres are clustered for easier handling.

APPLICATION

- **Furnaces & other equipment**
- **Tank walls & heat storage**
- **Irregular shapes**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- **For filling cavities (confined spaces) in furnaces, tank walls and heat storage tanks using blowing machines.**
- **For insulating irregular shapes using blowing machines**

BENEFITS

- No binder
- Odourless
- Flexible

DECLARATION OF PERFORMANCE

www.dopki.com/B4309IPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	VKF Nr. 25090
Thermal conductivity at 10 °C	λ	0,038	W/(m·K)	EN 12667
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767

Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

kg/PU*	Bags/pallet
12,5	28

* PU = packaging unit = 1 pallet
Loading unit = 1 pallet

ASTM-DECLARATION

OVERVIEW

The following listed products meet all the requirements and pass all the tests of mentioned ASTM- Standards:

Products	Pipe section Power-teK PS 680	Industrial Pipe Belt Power-teK PB 680 ALU	High temperature board Power-teK BD 660	High temperature board Power-teK BD 700	Wired Mat Power-teK WM 640 / WM 660 / WM 680
ASTM Product Standard	ASTM C547	ASTM C547	ASTM C612	ASTM C612	ASTM C592
Type	II-A	III-A	IV-A	IV	II/ III/ III
Product Properties	**ASTM Test standards**				
Density (kg/m³)	ASTM C302	ASTM C302	ASTM C303	–	ASTM C167
Dimensions (% of label)	ASTM C302	ASTM C302	ASTM C303	–	–
Dimensional Recovery (% of label)	–	–	–	–	ASTM C167
Thermal Conductivity	ASTM C335	ASTM C335	ASTM C177	ASTM C177	ASTM C177
Compressive Resistance (kPa)	–	–	ASTM C165	ASTM C165	–
Water vapor Sorption (Mass %)	ASTM C1104	ASTM C1104	ASTM C1104	ASTM C1104	ASTM C1104
Odor emission	–	–	ASTM C1304	ASTM C1304	ASTM C1304
Surface Burning Characteristics	ASTM E84	ASTM E84	ASTM E84	ASTM E84	ASTM E84
Maximum Use Temperature	ASTM C447/ ASTM C411	ASTM C447/ ASTM C411	ASTM C447/ ASTM C411	ASTM C447/ ASTM C411	ASTM C447/ ASTM C411
Exothermic Temperature Rise (°C)	ASTM C447/ ASTM C411	ASTM C447/ ASTM C411	ASTM C447/ C411	ASTM C447/ C411	–
Fungi Resistance	–	–	ASTM C1338	ASTM C1338	ASTM C1338
Sag Resistance (% thickness)	ASTM C411	ASTM C411	–	–	–
Linear shrinkage (% change)	ASTM C356	ASTM C356	ASTM C356	ASTM C356	ASTM C356
Corrosiveness	ASTM C795	ASTM C795	ASTM C665 (sec- 13.8)	ASTM C795/ ASTM C665 (sec- 13.8)	ASTM C795/ ASTM C665 (sec- 13.8)
Rigidity	–	–	ASTM C1101	ASTM C1101	–
Non Fibrous Shot Content (% content)	ASTM C1335	ASTM C1335	ASTM C1335	ASTM C1335	ASTM C1335
Non combustibility	–	–	–	–	ASTM E136

ASTM technical data sheets and specification text are available on request.

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FIRE PROTECTION

FIRE-TEK FOR GREATER SAFETY

FIRE-TEK

SYSTEM

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Fire-teK® DuctProtect 30 R SYSTEM

SYSTEM INFO

VIDEO

DESCRIPTION

The Knauf Insulation Fire-teK® DuctProtect 30 R SYSTEM **provides passive fire protection of rectangular ventilation ducts and delivers guaranteed fire resistance of up to 30 minutes** (if installed following the installation guidelines). The system is composed of core Knauf Insulation fire protective boards Fire-teK® BD 907 ALB and Fire-teK® BD 918, which are supported by additional products: ceramic glue Fire-teK® STICK, intumescent Fire-teK® INT and loose wool Power-teK® LW STD.

In addition to passive fire protection, the Knauf Insulation Fire-teK® DuctProtect 30 R SYSTEM also demonstrates excellent thermal and acoustic insulation properties. Due to the optimized dimensions of the insulation boards, the system can even be used where space is at a premium.

APPLICATION

- ✔ **Rectangular air ducts**

The product is recommended for fire protection of defined applications within technical insulation where:

- ✔ **Passive fire protection is needed**
- ✔ **Wall and ceiling penetrations are implemented**

BENEFITS

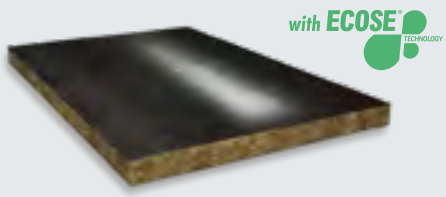
- ✔ 100% Mineral Wool fire protection system (patent applied)
  - o No reinforcing profile needed
  - o No risk of leakage / loss of pressure as there are no holes in the ventilation duct.
- ✔ Ensuring higher hygiene standards due to missing rivets or screws inside the duct
  - o No wall fixation needed
  - o No sound transfer from the duct to the partition
- ✔ Faster and easier mounting
- ✔ Simple installation
  - o Fast and easy cutting and mounting
  - o No additional tools such as cutting discs, drilling and cordless riveting machines required
- ✔ Added revision openings (NEW)
- ✔ Insulation thicknesses 60 and 100 mm
- ✔ Eurofins Certification Indoor Air Comfort
- ✔ ECOSE® Technology

System name	Fire resistance class	Application	Product name	Density [kg/m³]	Thickness [mm]
Fire-teK® DuctProtect 30 R SYSTEM	EI30 (ve ho i ◄► o) S	Solid ceiling Dry wall Solid wall	Fire-teK® BD 907 ALB*	70	60 - 100
			Fire-teK® BD 918	180	30

* ALB = reinforced black alu foil

CORE SYSTEM PRODUCT

Fire-teK® BD 907 ALB
(technical data page 94)



Fire-teK® BD 918
(technical data page 98)

COMPLEMENTARY SYSTEM PRODUCTS

Fire-teK® STICK Ceramic Glue
(technical data page 102)

Power-teK® LW STD Loose Wool
(alternatively Sound-teK FM 140 ALU mat) (technical data page 86)

Fire-teK® INT Intumescent
(technical data page 102)

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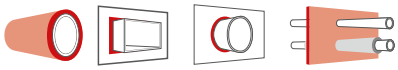
Fire-teK® DuctProtect 30–120 C SYSTEM

SYSTEM INFO



DESCRIPTION

The Knauf Insulation Fire-teK® DuctProtect 30-120 C SYSTEM provides passive fire protection of circular ventilation ducts and delivers guaranteed fire resistance from 30 to 120 minutes (if installed following the installation guidelines).
The system is composed of core Knauf Insulation fire protective wired mats Fire-teK® WM 908 GGB / Fire-teK® WM 910 GGB and ceramic glue Fire-teK® STICK. Depending on the fire classes, the system requires insulation thicknesses in a range of 40, 80 or 100 mm and can be used on the ducts with the diameter up to 1,000 mm.
In addition to passive fire protection, the Knauf Insulation Fire-teK® DuctProtect 30-120 C SYSTEM also provides excellent thermal and acoustic insulation properties.

APPLICATION

✔ **Circular air ducts**

The product is recommended for fire protection of defined applications within technical insulation where:

✔ **Passive fire protection is needed**
✔ **Wall and ceiling penetrations are implemented**

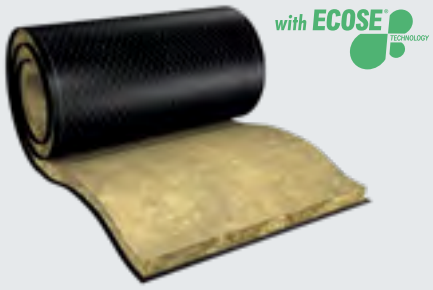
BENEFITS

- ✔ Quick and easy to use:
  - o No gluing at the joints necessary
  - o Standardized installation for EI30 - EI120
  - o No welding pins required
- ✔ Matching black and desent look
- ✔ Compact: thicknesses only 40, 80 or 100 mm
- ✔ No doubling layers at duct joints
- ✔ Suitable for moulded parts
- ✔ Excellent thermal and acoustic insulation
- ✔ ECOSE® Technology
- ✔ Eurofins Certification Indoor Air Comfort Standard

System name	Fire resistance class	Application	Product name	Density [kg/m³]	Thickness [mm]
Fire-teK® DuctProtect 30–120 C SYSTEM	EI 30 (ve ho i ↔ o) S	Solid ceiling Dry wall Solid wall	Fire-teK® WM 910 GGB	ca. 100	40
	EI 60 (ve ho i ↔ o) S		Fire-teK® WM 908 GGB	ca. 80	80
	EI 90 (ve ho i ↔ o) S				100
	EI 120 (ve ho i ↔ o) S				100

CORE SYSTEM PRODUCT

Fire–teK® WM 908/WM 910 GGB
(technical data on pages 100)



COMPLEMENTARY SYSTEM PRODUCT

Fire-teK® STICK Ceramic Glue
(technical data page 102)

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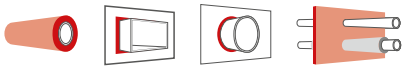
Thermo-teK PS Pro ALU as fire safe wall and ceiling penetrations (EI30 - EI120)

PRODUCT INFO



DESCRIPTION

Knauf Insulation Rock Mineral Wool pipe sections Thermo-teK PS Pro ALU have been tested and proven for penetrations through walls and ceilings with fire protection classification and may be used both in light weight and massive partitions. This includes also one and two-side insulated pipe systems (so called asymmetrical and symmetrical installation) for pipes. Thermo-teK PS Pro ALU provides passive fire protection of steel, stainless stell, copper, iron and plastic composite pipes and delivers guaranteed fire resistance of up to 120 minutes.

Knauf Insulation Thermo-teK PS Pro ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- ✔ **Wall/ceiling penetration**

The product is recommended for fire protection of defined applications within technical insulation where:

- ✔ **Passive fire protection is needed**
- ✔ **Fire resistance up to EI120 for wall/ceiling penetrations is required.**

BENEFITS

- ✔ 2-in-1 solution for fire protection and thermal insulation
- ✔ Quick and easy to use
- ✔ Matching aluminium look
- ✔ Only one piece of pipe section is needed in the middle of the wall/ceiling to achieve fire resistance up to EI120.
- ✔ Excellent thermal and acoustic insulation
- ✔ Mineral Wool with ECOSE® Technology

MORE INFORMATION ABOUT THE PRODUCT ON PAGE 16.

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Fire-teK® BD 907 ALB

PRODUCT INFO

DESCRIPTION

Fire-teK BD 907® ALB is a high-temperature resistant mineral wool insulation board with single-sided black faced aluminium lamination that has been especially designed for fire protection on rectangular ventilation ducts to get EI30 (ve ho i<->o) S if the mounting is acc. to the installation manual.

Knauf Insulation Fire-teK® BD 907 ALB is produced with **ECOSE® Technology,** a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Rectangular air ducts**
- **Wall/ceiling penetrations of rectangular ducts**

The product is recommended for fire protection of the defined applications within technical insulation:

- **Passive fire protection of rectangular air ducts**

BENEFITS

- Fire-resistance class EI30, if part of the system FIRE-TEK® DuctProtect 30 R SYSTEM
- Tear-resistant, sturdy black aluminium lamination
- Sound reducing
- No doubling on flange connections
- Easy to cut
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305OPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications							Unit	Standard
Reaction to fire	–	A1							–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	10	40	50	100	150	200	250	°C	
	λ	0,035	0,038	0,039	0,046	0,056	0,065	0,077	W/(m·K)	EN 12667
Water soluble chloride ions (AS quality)	–	≤ 10							ppm	EN ISO 12624
Total water absorption	W_p	≤ 1,0							kg/m²	EN ISO 29767
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200							m	EN 12086
Melting point of fibres	ϑ	≥ 1000							°C	DIN 4102-17
Specific heat capacity	C_p	1030							J(kg/K)	EN ISO 10456
Silicone-free fibres	–	No emissions of lacquering disturbing substances							–	–
Designation code	–	MW-EN 14303-T5-WS1-MV2-CL10							–	EN 14303

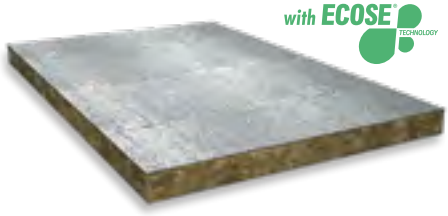
The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./ pallet	m²/pallet
1000 x 600 x **30**	0,60	160	96,00
1000 x 600 x **60**	0,60	80	48,00
1000 x 600 x **100**	0,60	48	28,80

* Other dimensions on request
** PU = packaging unit = 1 package of boards

Fire-teK® BD 908 ALU/ Fire-teK® BD 912 ALU



FIRE-TEK® BD 908 ALU

FIRE-TEK® BD 912 ALU

DESCRIPTION

Fire-teK® BD 908 ALU and Fire-teK® BD 912 ALU are high-temperature resistant Rock Mineral Wool insulation boards with single-sided aluminium lamination that has been especially designed for fire protection on rectangular ventilation ducts to get EI30 (ve ho i<->o) S with Fire-teK® BD 908 ALU and EI60 (ve ho i<->o) S Fire-teK® BD 912 ALU if the mounting is according to the installation manual and it is fully compliant with the test standard EN 13501-3.

Knauf Insulation Fire-teK® BD 908 ALU and Fire-teK® BD 912 ALU are produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- **Rectangular air ducts**
- **Wall/ceiling penetrations of rectangular ducts**

The product is recommended for fire protection of the defined applications within technical insulation:

- **Passive fire protection of rectangular air ducts**

BENEFITS

- Fire-resistance class EI30 with Fire-teK® BD 908 ALU, if installed as a system according to the manual
- Fire-resistance class EI60 with Fire-teK® BD 912 ALU, if installed as a system according to the manual
- Non combustible
- Tear-resistant, sturdy aluminium lamination
- Sound reducing
- No doubling on flange connections
- Very good heat insulation
- Easy to cut
- ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305PPCPR for Fire-teK® BD 908 ALU
www.dopki.com/T4305BPCPR for Fire-teK® BD 912 ALU

CERTIFICATES

Valid only for Fire-teK® BD 912 ALU

PERFORMANCE

Properties		Reference	Description/specifications								Unit	Standard
Reaction to fire		–	A1								–	EN 13501-1
Thermal conductivity depending on temperature		ϑ	50	100	200	300	400	500	600	650	°C	
	Fire-teK® BD 908 ALU	λ	0,040	0,049	0,067	0,092	0,123	0,163	0,215	–	W/(m·K)	EN 12667
	Fire-teK® BD 912 ALU		0,040	0,045	0,059	0,075	0,096	0,121	0,153	0,180		
Density	Fire-teK® BD 908 ALU	ρ	ca. 80								kg/m^3	EN ISO 29470
	Fire-teK® BD 912 ALU		ca. 120									
Water soluble chloride ions (AS quality)		–	≤ 10								ppm	EN ISO 12624
Total water absorption		W_p	≤ 1,0								kg/m^2	EN ISO 29767
Water vapour diffusion equivalent air layer thickness		s_d	≥ 200								m	EN 12086
Melting point of fibres		ϑ	≥ 1000								°C	DIN 4102-17
Specific heat capacity		C_p	1030								J/(kg/K)	EN ISO 10456
Silicone-free fibres		–	No emissions of lacquering disturbing substances								–	–
Designation code		–	MW–EN 14303–T5–WS1–MV2–CL10								–	EN14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

	Length* x Width* x **Thickness** (mm)	m^2/PU**	Pcs./ pallet	m^2/pallet
Fire-teK® BD 908 ALU	1000 x 600 x **60**	5,00	16	48,00
Fire-teK® BD 912 ALU	1000 x 600 x **60**	4,00	20	48,00

* Other dimensions on request
** PU = packaging unit = 1 package of boards

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FIRE-TEK

Fire-teK® BD 917 ALU

PRODUCT INFO

DESCRIPTION

Fire-teK® BD 917 ALU is a high-temperature resistant Rock Mineral Wool insulation board with single-sided aluminium lamination that has been especially designed for fire protection on rectangular ventilation ducts.
It is fully tested and certified to provide up to 2 hours fire protection to HVAC steel ductwork.

Knauf Insulation Fire-teK® BD 917 ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

BENEFITS

- ✔ Non combustible
- ✔ Tear-resistant, sturdy aluminium lamination
- ✔ Sound reducing
- ✔ No doubling on flange connections
- ✔ Very good heat insulation
- ✔ Easy to cut
- ✔ ECOSE® Technology

CERTIFICATES

APPLICATION

✔ **Rectangular air ducts**

The product is recommended for fire protection of the defined applications within technical insulation:

✔ **Passive fire protection of rectangular air ducts.**

PERFORMANCE

Product properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Density	ρ	ca. 165	kg/m³	EN ISO 29470
Water vapour diffusion equivalent air layer thickness	s_d	≥ 200	m	EN 12086
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Specific heat capacity	C_p	1030	J/(kgK)	EN ISO 10456
Silicone-free fibres	-	No emissions of lacquering disturbing sustances	–	–

Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com.

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./ pallet	m²/pallet
1200 x 600 x **45**	2,88	12	34,56
1200 x 600 x **90**	1,44	12	17,28

* Other dimensions on request
** PU = packaging unit = 1 package of boards

BOARD

Fire-teK® BD 916

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PRODUCT INFO

DESCRIPTION

The Fire-teK® BD 916 is a soft Rock Mineral Wool insulation board.
As to its even surface, a precise and even coating as well as the exact cutting, it has been especially designed for fire protection of wall and ceiling penetrations.

APPLICATION

✔ **Wall/ceiling penetration**

The product is recommended for fire protection of the defined applications within technical insulation:

✔ **Passive fire protection at wall-/ceiling penetrations**

BENEFITS

- ✔ High compressive strength
- ✔ High temperature resistant
- ✔ Non combustible
- ✔ Hydrophob

DECLARATION OF PERFORMANCE

www.dopki.com/T4305CPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A1	–	EN 13501-1
Density	ρ	ca. 160	kg/m³	EN ISO 29470
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Total water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	m	EN 12086
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Specific heat capacity	C_p	1030	J(kg/K)	EN ISO 10456
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–
Designation code	-	T5-ST(+)700-WS1-CL10	–	EN14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./ pallet	m²/pallet
1000 x 625 x **50**	2,50	104	65,00
1000 x 625 x **60**	2,50	64	40,00
1000 x 625 x **80**	1,88	66	41,25

* Other dimensions on request
** PU = packaging unit = 1 package of boards

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Fire-teK® BD 918

PRODUCT INFO

DESCRIPTION

Fire-teK® BD 918 is a high-temperature resistant Rock Mineral Wool insulation board that has been especially designed for the fire protective wall / ceiling penetration of rectangular ventilation ducts to get EI30 (ve ho i<->o) S if the mounting is according to the installation manual. As a part of the Fire-teK® DuctProtect 30 R System in the area of wall / ceiling penetration it ensures fire class EI30 at 30 mm thickness.
Remark: VKF issued for Fire-teK® BD 918 as a part of Fire-tek® DuctProtect 30 R System with Fire-teK® BD 907 ALB.

Knauf Insulation Fire-teK® BD 918 ALU is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

- ✔ **Wall/ceiling penetrations**

The product is recommended for fire protection of the defined applications within technical insulation:

- ✔ **Passive fire protection at wall/ceiling penetrations of rectangular air ducts**

BENEFITS

- ✔ Fire-resistance class EI30, if part of the system FIRE-TEK® DuctProtect 30 R SYSTEM
- ✔ Strong duct support at penetration
- ✔ Easy to cut
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305CPCPR

CERTIFICATES

PERFORMANCE

Properties	Reference	Description/specifications								Unit	Standard
Reaction to fire	–	A1								–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	50	100	200	300	400	500	600	700	°C	EN 12667
	λ	0,041	0,045	0,059	0,075	0,095	0,119	0,147	0,178	W/(mK)	
Density	ρ	ca. 180								kg/m³	EN ISO 29470
Water soluble chloride ions (AS quality)	–	≤ 10								ppm	EN ISO 12624
Total water absorption	W_p	≤ 1,0								kg/m²	EN ISO 29767
Melting point of fibres	ϑ	≥ 1000								°C	DIN 4102-17
Specific heat capacity	C_p	1030								J/(kg/K)	EN ISO 10456
Silicone-free fibres	–	No emissions of lacquering disturbing substances								–	–
Designation code	–	MW-EN 14303-T5-WS1-MV2-CL10								–	EN14303

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length* x Width* x **Thickness** (mm)	m²/PU**	Pcs./ pallet	m²/pallet
1000 x 500 x **30**	2,50		50,00

* Other dimensions on request
** PU = packaging unit = 1 package of boards

WIRED MAT

Fire-teK® WM 908 GGA

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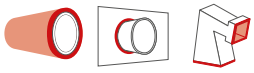
FIRE-TEK

PRODUCT INFO



DESCRIPTION

Fire-teK® WM 908 GGA is a high-temperature-resistant aluminium faced Rock Mineral Wool wired mat in which galvanised wire is stitched onto a galvanised wire mesh on one side. It has a reinforced aluminium foil between the mineral wool surface and wire mesh. It has been especially designed for fire protection in round ventilation ducts to get EI30 (ve ho i<->o) S with 60 mm or EI60 (ve ho i<->o) S with 80 mm if the mounting is according to the installation manual and is fully compliant with test standard EN 13501-3.
The insulation mats have received the "**Eurofins Indoor Air Comfort Gold**" award in recognition of the formaldehyde-free ECOSE binder technology used in their manufacturing process. Their use ensures a better room atmosphere while also making handling considerably more comfortable.

Knauf Insulation Fire-teK®WM 908 GGA is produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

✔ **Circular air ducts**

The product is recommended for fire protection of the defined applications within technical insulation:
✔ **Fire protection of circular air ducts.**

BENEFITS

- ✔ Fire resistance class EI30 / EI60, if installed according to manual
- ✔ Strong outer packaging
- ✔ Sustainable product labelling
- ✔ Overlapping wire mesh on both sides (> 50 mm)
- ✔ Easy to handle and cut
- ✔ Elastic, strong and flexible
- ✔ Hydrophob
- ✔ High temperature resistant
- ✔ Non combustible
- ✔ Age resistant
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications								Unit	Standard
Reaction to fire	-	A1								–	EN 13501-1
Thermal conductivity depending on temperature	ϑ	50	100	200	300	400	500	600	640	°C	EN 12667
	λ	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	W/(m·K)	
Water soluble chloride ions (AS quality)	-	≤ 10								ppm	EN ISO 12624
Density	ρ	ca. 80								kg/m³	EN ISO 29470
Water absorption	W_p	≤ 1,0								kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1								–	EN 14303
Melting point of fibres	ϑ	≥ 1000								°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances								–	–
Longitudinal air flow resistance	r	≥ 40								kPa*s/m²	EN 29053
Specific heat capacity	C_p	1030								J/(kgK)	EN ISO 10456
Designation code	–	MW–EN14303–T2–WS1–CL10								–	EN 14303

Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Length x Width* x **Thickness** (mm)	m²/roll	m²/pallet
3500 x 900 x **60**	3,15	85,05
3000 x 900 x **80**	2,70	72,90

Loading unit = 1 pallet
Rolls/pallet = 27 pcs.

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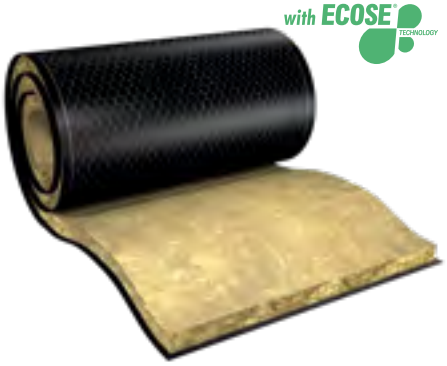
Fire-teK® WM 908 GGB / Fire-teK® WM 910 GGB



FIRE-TEK® WM 908 GGB

FIRE-TEK® WM 910 GGB

DESCRIPTION

Fire-teK® WM 908 GGB and Fire-teK® WM 910 GGB are high-temperature resistant Rock Mineral Wool wired mats covered with a black re-inforced aluminium facing that has been especially designed for fire protection in round ventilation ducts. Listed fire classes can be reached with mounting acc. to the installation manual.

Knauf Insulation Fire-teK® WM 908 GGB and Fire-teK® WM 910 GGB are produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

✔ **Circular air ducts**

The product is recommended for fire protection of the defined applications within technical insulation:

✔ **Passive fire protection of circular air ducts.**

BENEFITS

- ✔ Fire resistance class EI60/EI120 with Fire-teK® WM 908 GGB, if installed as part of the system Fire-teK® DuctProtect 30-120 C SYSTEM
- ✔ Fire resistance class EI30 with Fire-teK® WM
- ✔ Quick and easy to use:
  - ✔ No gluing at the joints necessary
  - ✔ No welding pins required
- ✔ Matching black and desent look
- ✔ Compact: thicknesses only 60, 80 or 100 mm
- ✔ No doubling layers at duct joints
- ✔ Suitable for moulded parts
- ✔ Excellent thermal and acoustic insulation
- ✔ Eurofins Certification Indoor Air Comfort Standard
- ✔ Strong outer packaging
- ✔ Sustainable product labelling
- ✔ Elastic, strong and flexible
- ✔ Hydrophob
- ✔ High temperature resistant
- ✔ Non combustible
- ✔ Age resistant
- ✔ ECOSE® Technology

DECLARATION OF PERFORMANCE

www.dopki.com/T4305EPCPR for Fire-teK® WM 908 GGB
www.dopki.com/T4305FPCPR for Fire-teK® WM 910 GGB

CERTIFICATES

PERFORMANCE

Product properties		Reference	Description/specifications									Unit	Standard
Reaction to fire		–	A1									–	EN 13501-1
Thermal conductivity depending on temperature		ϑ	50	100	200	300	400	500	600	640	660	°C	EN 12667
	Fire-teK® WM 908 GGB	λ	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	–	W/(m·K)	
	Fire-teK® WM 910 GGB		0,040	0,046	0,062	0,083	0,110	0,145	0,179	–	0,210		
Density	Fire-teK® WM 908 GGB	ρ	ca. 80									kg/m³	EN ISO 29470
	Fire-teK® WM 910 GGB		ca. 100										
Water soluble chloride ions (AS quality)		–	≤ 10									ppm	EN ISO 12624
Water absorption		W_p	≤ 1,0									kg/m²	EN ISO 29767
Water vapour diffusion resistance		μ	1									–	EN 14303
Melting point of fibres		ϑ	≥ 1000									°C	DIN 4102-17
Silicone-free fibres		–	No emissions of lacquering disturbing substances									–	–
Longitudinal air flow resistance		r	≥ 40									kPa*s/m²	EN 29053
Specific heat capacity		C_p	1030									J/(kgK)	EN ISO 10456
Designation code		–	MW–EN14303–T2–WS1–CL10									–	EN 14303

Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

	Length x Width* x **Thickness** (mm)	m²/roll	m²/pallet
Fire-teK® WM 910 GGB	4000 x 900 x **40**	4,50	121,50
Fire-teK® WM 908 GGB	3000 x 900 x **80**	2,70	72,90
Fire-teK® WM 908 GGB	2500 x 900 x **100**	2,25	60,75

Loading unit = 1 pallet
Rolls/pallet = 27 pcs.

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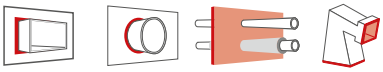
Fire-teK® CR STD

PRODUCT INFO



DESCRIPTION

Fire-teK® CR STD fire cord is made of Rock Mineral Wool fibres without binder. It is chemically neutral, non-combustible and produced with a polyamide thread.

APPLICATION

- ✔ **Wall/ceiling penetrations**
- ✔ **Irregular shapes**

The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation:

- ✔ **Passive fire protection in industrial plants, power plants and other special set ups where sealings with high temperatures resistant materials are needed: chimneys, pipe lines, ducts and joints.**

BENEFITS

- ✔ Chemically neutral
- ✔ Without binder

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	A2	–	EN 13501-1
Density	ρ	ca. 100	kg/m³	EN ISO 29470
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Water vapour diffusion resistance	μ	1	–	EN 14303
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

PACKAGING SPECIFICATIONS

Diameter (mm)	Lenght/roll (m)	m/PU	m/Palette
20	54	162,00	3888,00
30	36	108,00	2592,00
40	22	66,00	1584,00
50	12	36,00	864,00
60	10	30,00	720,00

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Fire-teK® INT

PRODUCT INFO

DESCRIPTION
Fire-teK® INT is a compressible polyurethane-based joint seal tape with halogen-free intumescent fire retardants, that has been specially developed for wall/ceiling penetrations and is used for passive fire protection of fire-rated ducts. It is sold in strips 1 meter long and red brown in color.
VOC emission class: A+ (ISO 16000-3, ISO 16000-6, ISO 16000-9, ISO 16000-11, ISO 16017-1).

BENEFITS
- ✔ Fire protection
- ✔ Available in different dimensions
- ✔ Flexibility up to 25%
- ✔ Applicable for light construction and concrete walls

APPLICATION
✔ **Wall/ceiling penetration**

The product is recommended for fire insulation of the defined applications within technical insulation:
✔ **Specially developed for wall/ceiling penetrations at fire-rated ducts (EI15/EI30/ EI60/EI90/EI120).**

PACKAGING SPECIFICATIONS

Diameter (mm)	length (mm)
16	1000
24	1000
30	1000
39	1000

Fire-teK® STICK

PRODUCT INFO

DESCRIPTION
Fire-teK® STICK is used for passive fire protection of fire-rated ducts. It is a non-flammable adhesive that has been specially developed for wall penetrations. It is easy to apply and essentially consists of water glass and inorganic fillers.

BENEFITS
- ✔ Easy to apply
- ✔ Resistant up to 1.200°C
- ✔ Short drying time

APPLICATION
✔ **Wall/ceiling penetration**

The product is recommended for fire insulation of the defined applications within technical insulation:
✔ **Passive fire protection of the rectangular and circular ducts at wall/ceiling penetrations**

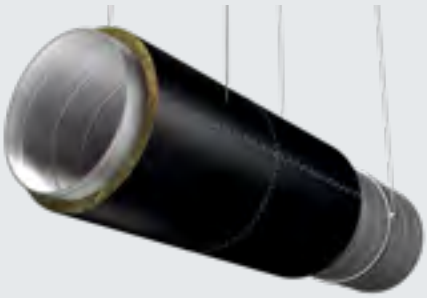
PACKAGING SPECIFICATIONS

kg/bucket
6

FIRE PROTECTION SYSTEMS – MORE INFORMATION IN ONE PLACE

Fire-teK® Duct Protect 30-120C SYSTEM

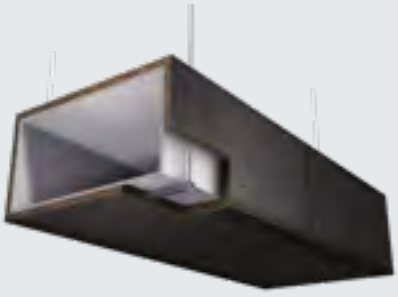
System which provides superior passive fire protection for circular ventilation ducts to achieve EI30 till EI120.



Download the manual

Fire-teK® Duct Protect 30R SYSTEM

System that provides superior passive fire protection of different types of rectangular ventilation ducts to achieve EI30.



Download the manual

Take a look at the installation video

FIRE PROTECTION SYSTEM FOR PIPES with Thermo-teK PS Pro ALU

Solution for passive fire protection of pipes penetration through walls and ceilingsto achieve EI60 till EI120.

Download the manual

SEA-TEK®

COMFORTABLY SAILING UNDER THE ECOSE® FLAG

SEA-TEK

BOARD

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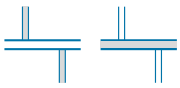
SEA-TEK

Sea-teK® BD 035-200

PRODUCT INFO



DESCRIPTION

Sea-teK® BD 035-200 are Rock Mineral Wool insulation boards which are optimised for marine applications with excellent thermal and acoustic characteristics.
Sea-teK BD 100 is used in certified A-12, A-30, A-60 steel deck and bulhead structures according IMO 2010 FTP Code.

Knauf Insulation Sea-teK® BD 035-200 are produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

Sea-teK® boards are specially suitable for the insulation of:

- ✔ **Decks and bulkheads**
- ✔ **Duct and air handling units**
- ✔ **Machinery**
- ✔ **Cabin construction and panels**

BENEFITS

- ✔ Water-repellent
- ✔ Easy to handle and cut
- ✔ Robust and flexible
- ✔ Made without formaldehyde additive
- ✔ ECOSE® Technology

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications	Unit	Standard
Reaction to fire	-	Non-combustible	–	IMO 2010 FTPC, Deel1
Surface flammability	-	Low flame-spread characteristic	–	IMO 2010 FTPC, Part 5
Water soluble chloride ions (AS quality)	-	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	-	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Sea-teK	Thermal conductivity at 10 °C in W/(mK) acc. to EN 12667	Thermal conductivity at 40 °C in W/(mK) acc. to EN 12667	Density in kg/m³ acc. to EN ISO 29470
BD 035	0,038	0,044	ca. 35
BD 040	0,036	0,040	ca. 40
BD 050	0,037	0,039	ca. 50
BD 060	0,035	0,038	ca. 60
BD 070	0,034	0,038	ca. 70
BD 080	0,034	0,037	ca. 80
BD 090	0,035	0,038	ca. 90
BD 100	0,035	0,038	ca. 100
BD 110	0,035	0,038	ca. 110
BD 120	0,036	0,039	ca. 120
BD 135	0,036	0,039	ca. 135
BD 150	0,036	0,039	ca. 150
BD 160	0,036	0,039	ca. 160
BD 170	0,039	0,043	ca. 170
BD 180	0,039	0,043	ca. 180
BD 190	0,039	0,043	ca. 190
BD 200	0,039	0,043	ca. 200

Products are available with white and black glass veil or with aluminium facings.

PACKAGING SPECIFICATIONS

Length x Width x **Thickness** (mm)	m²/PU**	Pcs./pallet	m²/pallet
1200 x 600 x **30**	7,20	160	115,20
1200 x 600 x **50**	3,60	100	72,00
1200 x 600 x **75**	2,88	75	46,08

* Other dimensions on request.
Note the minimum order quantities. Thickness available: 15-200 mm (depending on density)
** PU = packaging unit = 1 package of boards

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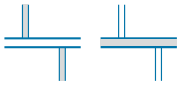
SEA-TEK

Sea-teK® WM 070-120

PRODUCT INFO



DESCRIPTION

Sea-teK® WM 070-120 wired mats with captive product labels are compact, flexible Rock Mineral Wool mats, which are stitched with galvanised wire onto galvanised wire mesh. Non-combustible, water repellent and resistant to ageing. The Wired Mat packaging has a perforation for quick and safe opening, as well as a special carrying strap for safe and easy transport.
Sea-teK® WM 100 is used in certified A-30 and A-60 steel deck and bulhead structures according IMO 2010 FTP Code.

Knauf Insulation Sea-teK® WM 070-120 are produced with **ECOSE® Technology**, a patented binder system, based entirely on renewable raw materials.

APPLICATION

Sea-teK® wired mats are used for thermal, sound and fire protection insulation of:

- ✔ **Decks and bulkheads**
- ✔ **Machinery**
- ✔ **Air ducts**

BENEFITS

- ✔ Strapex band as carrying aid
- ✔ Strong outer packaging
- ✔ Sustainable product labelling
- ✔ Overlapping wire mesh on both sides (> 50 mm)
- ✔ Easy to handle and cut
- ✔ Strong and flexible
- ✔ Hydrophob
- ✔ High temperature resistant
- ✔ Non combustible
- ✔ Age resistant
- ✔ ECOSE® Technology

CERTIFICATES

PERFORMANCE

Product properties	Reference	Description/specifications	Unit	Standard
Water soluble chloride ions (AS quality)	–	≤ 10	ppm	EN ISO 12624
Water absorption	W_p	≤ 1,0	kg/m²	EN ISO 29767
Melting point of fibres	ϑ	≥ 1000	°C	DIN 4102-17
Silicone-free fibres	–	No emissions of lacquering disturbing substances	–	–

The technical details are for information only. Please refer to the data sheet for complete current details on www.knaufinsulation-ts.com

Sea-teK	Thermal conductivity at 10 °C in W/(mK) acc. to EN 12667	Thermal conductivity at 40 °C in W/(mK) acc. to EN 12667	Density in kg/m³ acc. to EN ISO 29470
WM 070	0,035	0,038	ca. 70
WM 080	0,034	0,038	ca. 80
WM 100	0,036	0,039	ca. 100
WM 120	0,034	0,038	ca. 120

Products are available also with aluminium facing.

PACKAGING SPECIFICATIONS

Length x Width x **Thickness** (mm)	m²/Roll	m²/pallet
6000 x 900* x **30**	5,40	145,80
4000 x 900* x **50****	3,60	97,20
3000 x 900* x **80**	2,70	72,90

* 1000 or 500 mm width on request.
Loading unit 1 pallet
Rolls/pallet: 27 pcs.
** not available for Sea-teK WM 070

REFERENCES

Display of randomly selected reference objects to show the acknowledgement and implementation of Knauf Insulation Technical Solutions Mineral Wool products and systems.

Distric heating, Berlin, Germany, product installed: Power-teK LM 550 ALU

Coldbox-insulation at Basf Ludwigshafen, Germany, product installed: Power-teK LW CRY.

Chemical plant, Slovenija, products installed: Power-teK BD 680, Power-teK LM ALU, Power-teK PS 680, Power-teK LW STD.

Heat storage tank, Küssnacht, Switzerland, product installed: Power-teK RL 220.

Hotel Intercontinental, Ljubljana, Slovenija, products installed: Thermo-teK PS Pro ALU, Power-teK PS 680.

Airbus heating system Touluse, France, products installed: Power-teK PS 680, Thermo-teK PS Pro ALU.

TOOLS & SERVICES

TIPCHECK ENERGY AUDITS

TIPCHECK

TIPCHECK , which is run by EiiF (EUROPEAN INDUSTRIAL INSULATION FEDERATION), is a standardized volunteer thermal energy auditing, in line with EN 16247 and ISO 50002, to evaluate the performance of industrial insulation systems of existing facilities, planned projects or retrofits.

The EiiF (European Industrial Insulation Foundation) assesses that the annual savings potential of technical insulation for the industry and building sector is 50 TWh (4,325 ktoe) of various energy carriers, of which 23 TWh (1,980 ktoe or 2.2 billion m^3) is gas.

As many as three out of four TIPCHECK clients immediately invest or plan to invest in the recommended insulation solutions after a standardised and certified TIPCHECK audit. An improved insulation is a very attractive investment.

Knauf Insulation has **certified and highly educated TIPCHECK experts** with long-term experience in the insulation industry. Perfectly equipped to tackle all insulation challenges, they will help you to recognise the savings potential of your plant.

BENEFITS

- Energy cost savings
- Lower energy consumption
- Lower CO_2 emissions
- Important contribution to greener environment
- In line with the 2050 net-zero EU agenda

APPLY FOR TIPCHECK AUDIT HERE:

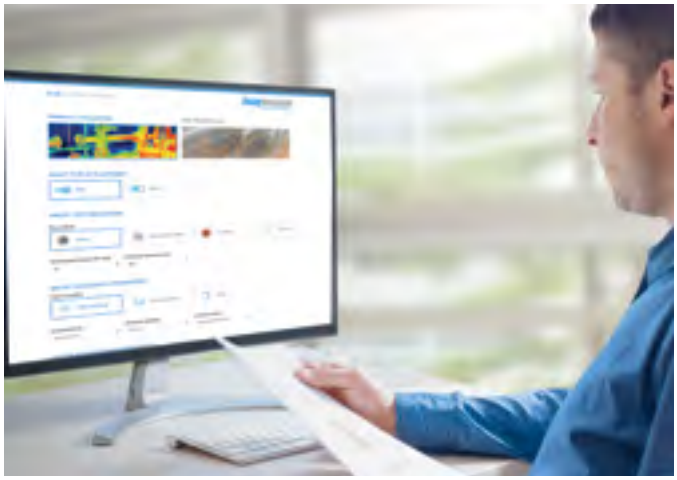
EXPER-TEK ONLINE CALCULATION TOOL

Exper-teK is the simplest tool for thermal calculations, calculations of CO_2 and calculations of potential condensation, highly appreciated by the specifiers. It is also the only tool that is adjusted to several different users' profiles, based on standards EN ISO 12241 / BS 5422 and VDI 2055-1 certified calculation methods and available in 20 languages.

BENEFITS

- Online at any time and free of charge
- Intuitive and easy user guidance
- Uncomplicated calculation of heat losses and energy costs obtained after only 5 steps
- VDI-certified / EN ISO 12241 calculation methods
- Calculation of CO_2 savings **NEW!**
- Calculation of potential condensation **NEW!**
- Available in various languages

USE EXPER-TEK TOOL:



DISCOVER OUR NEW BIM FACTORY FOR TS PLATFORM TO CREATE BIM OBJECTS ACCORDING TO YOUR NEEDS!

MAKE USE OF THE BENEFITS:

- Possibility to create instantly custom BIM objects of insulation systems, according to your needs
- Intuitive selection of the insulation product/system and equipment (pipe or duct), based on application, technical properties, dimensions and national energy efficiency regulations
- Possibility to get brand visible or product neutral BIM objects
- BIM object available in Revit, Archicad and Ifc formats
- Periodical free webinars

Free and intuitive platform to generate BIM objects.
Save time and enhance your projects with high-quality technical insulation solutions!
Discover our smart solutions for thermal insulation (Thermo-teK range) and fire protection (Fire-teK® systems) of pipes and ducts, available in Revit, Archicad and Ifc formats.

DISCOVER THE NEW WAY OF DESIGNING: USE BIM FACTORY FOR TS PLATFORM!

SPECIFICATION TEXTS

Free and ready-to-use specification texts for Knauf Insulation Technical Solutions products portfolio to save your time. They are perfect for usage in project and tender documentation.

BENEFITS

- Specification texts in **.doc format** to be easily copied and pasted into tenders
- Free of charge and online any time at www.knaufinsulation-ts.com
- Neutral and usable in public tenders, without naming of Knauf Insulation brand directly
- Available in different languages

Download specification texts from our website:

EPD–LABELLED PRODUCTS FROM KNAUF INSULATION TECHNICAL SOLUTIONS

An Environmental Product Declaration (EPD) is an independently verified and registered document that communicates transparent and comparable information about the life cycle environmental impact of products in a credible way.
EPD is the final report, which is issued after the evaluation of the product is finished. The evaluation, which considers the full value chain of the product — from extraction of the material to finished, manufactured product, its usage and end of life — is called a life cycle assessment or LCA. The LCA is the basis for issuing the final EPD report.
Creating an EPD involves highly intensive and wide-ranging data collection, hundreds of calculations and rigorous verification, which used to take up to 6 months. Despite this fact, the list of our EPD – labelled products is pretty long:

FIRE-TEK® PRODUCTS:

- Fire-teK® BD 907 ALB
- Fire-teK® BD 912 ALU
- Fire-teK® WM 908 GGB
- Fire-teK® WM 910 GGB

THERMO-TEK PRODUCTS:

- Thermo-teK PS Pro ALU
- Thermo-teK PS Eco
- Thermo-teK LM Pro ALU
- Thermo-teK LM Eco ALU
- Thermo-teK LM Air ALU
- Thermo-teK BD 060 ALU/WBS/VBS/VWS/WBD/VBD/VWD
- Thermo-teK BD 080 ALU/WBS/VBS/VWS/WBD/VBD/VWD

POWER-TEK® PRODUCTS:

- Power-teK® LM 450 ALU
- Power-teK® WM 660 GGN
- Power-teK® LW STD

In decision-making processes and market competition, all the EPD labelled products will have a great advantage over others.

DOWNLOAD EPD-LABELLED PRODUCTS

EPD®

KNOWLEDGE PLATFORM

Exper-team offers a knowledge center with know-how transfer for all areas of technical insulation.

From experts for experts!

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GOOD TO KNOW

ORDER AND LOGISTIC SERVICE

Minimum order quantity
In principle, the minimum order quantity is a full truck load. Partial deliveries, which deviate from the minimum order quantity are possible on request. Under certain circumstances NOT ALL of the materials listed in this range are available as standard materials. Please contact us for enquiries about small quantities. The smallest delivery quantity for material in stock is one pallet. Delivery quantities for special productions on request.

Special products
The currently available dimensions are listed in this catalogue. Other dimensions are available as special orders and must be accepted after confirmation of the order. As these are only produced to order, the delivery times and minimum order quantities deviate from those for standard products. In this case, please contact our Customer Service.

Delivery/waiting times
The delivery vehicle must be unloaded at its destination within 120 minutes. After this period, the customer will be charged a standstill fee of € 50.- for each hour or part of an hour. After 4 hours, the customer will be invoiced for all additional costs which have been incurred due to the waiting time.

Orders
Orders must be made in writing. If special prices were agreed for an order for our standard products, please state the price and the name of the project in your order.

Order confirmation
The customer receives a written confirmation for each order which is accepted. In order for us to provide you with our usual service, please check that a confirmation is available for each order.

Our staff will be pleased to assist you in case of queries.

We deliver with following trucks

Jumbotrailer
(7,3 x 2,48 x 2,95 m and
8,2 x 2,48 x 3 m)
Volume 110 m³

Semitrailer
(13,6 x 2,45 x 2,65 m)
Volume 80 m³

Megatrailer
(13,6x 2,45 x 3,05 m)
Volume 100 m³

Product	Truck type Megatrailer/Semitrailer	Jumbotrailer	Plant
Thermo-teK PS Pro ALU / PS Eco ALU / PS Eco / PS Cld ALS Thermo-teK LM Eco ALU / LM Pro ALU / LM Cld ALS Power-teK® WM 640 / WM 660 / WM 680 Power-teK® LM 550 ALU (30-80 mm) Power-teK® PS 680 Power-teK® CM 620 ALU / CM 450 ALU Fire-teK® WM 908 GGB / WM 910 GGB Thermo-teK FM 040-060/ALU Power-teK FM 620-640-660/ALU Sea-teK WM 080-120	22 pallets	24 pallets	Novi Marof Croatia
Power-teK® BD 680, 700/ALU Power-teK® LM 550 ALU (100-140 mm) Thermo-teK BD 035-100 / ALU Sound-teK BD 804-808 / ALU Power-teK® BD 450, 550, 620, 640, 651, 700 / ALU Fire-teK® BD 907 ALB / BD 908 ALU / BD 912 ALU / BD 917 / BD 918 Sea-teK BD 035-200 Power-teK PB 640/680 ALU	13/22/26 pallets	15/24/30 pallets	
Power-teK® RL 220	22 pallets	24 pallets	Krupka
Thermo-teK LM Air ALU	22 pallets	24 pallets	Most
Fire-teK® BD 916 Power-teK® BD 772/775/776/778	26 pallets	30 pallets	Škofja Loka
Power-teK® LW STD / LW CRY / LW 020	24 pallets	26 pallets	Škofja Loka
Thermo-teK Esy ALP	22 pallets	24 pallets	Eskisehir

HANDLING AND STORAGE

In order to keep the quality of our products on the high level all the customers are asked to follow our instructions regarding handling and storage of the products.

HANDLING
Knauf Insulation products are easy to handle and easy to install. They are supplied in suitable packaging materials to balance necessary transport protection with sustainable recycling options. Packaging is not designed for long-term storage or exposure to harsh weather conditions. Further product information is mentioned on every pack.

STORAGE
For longer-term protection on site we recommend storing the product either indoors or alternatively under a roof cover and off the ground. If covered storage is not available, products can be stored outside (open-air-storage) if placed off the ground (keep palletized) and covered with plastic hood (foil), for a maximum of up to 6 months from the date of delivery. Outdoor storage is not recommended during particularly humid months with large fluctuations in temperature.

CE LABELLING

CONFORMITY WITH EUROPEAN REGULATIONS (IN PARTICULAR PRODUCT STANDARDS EN 14303 AND 13162)

WHAT IS THE CE MARK?

CE The single European market (the 27 EU member states and the EFTA member states Iceland, Norway and Liechtenstein) provides enormous benefits to consumers. The wide and varied range of products in Europe is now taken for granted. Of course, consumers also expect that the products which they purchase are safe.

With the creation of the single European market, the European Union (EU) has specified special safety regulations for certain categories of products on the market. These regulations go much further than the general safety requirements which each product must meet.

According to these regulations, the manufacturer must issue an explicit declaration that his products are safe. Together with this declaration the CE mark is applied to the product. Importers must ensure that the manufacturer has taken the necessary steps to comply with the declaration. Wholesalers are obliged to take the required care and must identify unsafe products and remove them from sale.

HOW DOES THE SYSTEM WORK?

As stated above, manufacturers must ensure that their products fulfil the relevant safety requirements. This is done for example by analysing possible risks and subjecting the product to random examinations. After the completion of this process, the CE mark must be applied to the product. For certain products such as gas heating boilers or chainsaws, due to the high safety risks, the safety of the product cannot solely be tested by the manufacturer. In these cases the safety examination is carried out by an independent organisation, which is designated by the national authorities. Only when this process is complete can the manufacturer apply the CE mark to the product.

The CE mark is mandatory for many products. It is an indication that the product has been tested and that it complies with the legal requirements of the EU to ensure protection of health and safety and the environment before it is put on sale.

The CE mark enables the free sale of products within the European market if they comply with the requirements of EU law (e.g. for the protection of health and safety and the environment). It is a guarantee for the conformity of a product with the current legal regulations. The CE mark is applied to the product by the manufacturer. With the application of the CE mark, the manufacturer declares, at his own responsibility, that the product fulfils all of the applicable legal requirements of the EU. It is the responsibility of the manufacturer to ensure that the goods which are sold comply with the relevant laws and if necessary to ensure that the product is subjected to a conformity assessment by a designated agency.

The CE mark is not a sign of quality; it is neither evidence of a particular performance nor suitability for a particular cases of application. Testing of the suitability of building products and their design and dimensions must always be carried out with reference to the specific use by the end user.

Further information about the CE mark:

KEYMARK MONITORING

QUALITY MONITORING OF PRODUCTS

Although statutory regulations exist for the provision of evidence of the suitability of insulation materials in buildings, up to now, there have been no such regulations for insulation materials for industrial installations.

To provide a constant quality of product and verified product characteristics, many years ago the German insulation industry set up a voluntary quality control system. The following main characteristics are tested and monitored:

- Thermal conductivity
- Maximum temperature limit for use
- Dimensions

In addition, the following may be monitored and stated as special characteristics:

- AS quality
- Bulk density
- Water absorption
- Longitudinal flow resistance
- Compressive strength
- Reaction to fire and
- Other values (e.g. μ-value)

Only factory-made insulating materials whose compliance with the KEYMARK standard has been demonstrated by successful tests by a recognised testing laboratory and subsequent independent assessment receive the "KEYMARK supervision mark".

CERTIFICATE

After a positive assessment, DIN CERTCO issues a certificate which is valid for 2 years, together with a right to sue the "KEYMARK supervision mark". The product monitoring process (with annual inspections and monitoring of the QS system) ensures that compliance with the requirements described above is maintained after testing has been carried out. The owner of the certificate is registered in a public list, which can be accessed at any time and free of charge under CEN KEYMARK (available on https://keymark.eu/).

Further information about the dincerto quality mark:

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IMPORTANT DEFINITIONS ACCORDING TO AGI Q132

MAXIMUM TEMPERATURE LIMIT FOR USE

Insulating materials are classified with regard to their reaction to high temperatures on the basis of their maximum service temperature. This temperature is specified in the laboratory under conditions which are specified by
EN ISO 18097 and EN ISO 18096 and according to the form of delivery, and is checked at regular intervals by independent test facilities.

MAXIMUM TEMPERATURE FOR USE

In general, the maximum temperature for use is below the maximum temperature limit for use. This describes the temperature resistance under the conditions of use, i.e. that the insulating material can be continuously exposed to static or dynamic loads due to the temperature without impairment of its characteristics. The reduction factor for the determination of the temperature for use can be obtained from AGI Q132.

AS QUALITY

Under certain circumstances, stress corrosion may occur in stainless austenitic steels due to the presence of chloride ions. Because of this, only AS quality insulating materials may be used on these objects. In a factory test, the proportion of chloride ions in these insulating materials must not exceed an average of
10 ppm. In order not to absorb chloride ions from the environment, the insulation materials must be stored so that they are protected from the weather.

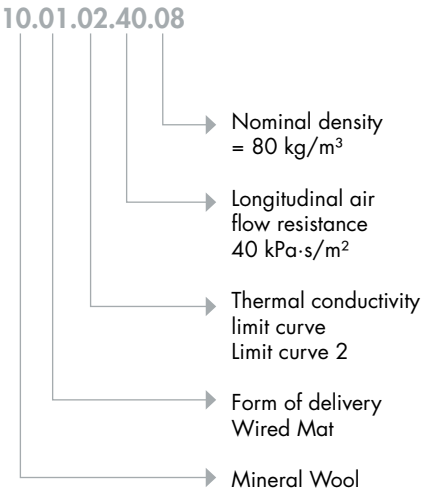
THERMAL CONDUCTIVITY

The thermal conductivity describes the insulating effect of an insulating material and is designated with the letter λ. The lower the value, the better the insulating effect. The thermal conductivities which are stated in this catalogue and in the data sheets are nominal values. The values are either stated depending on the temperature, or if only one thermal conductivity is stated, this is measured at a temperature of 10 °C. The operational thermal conductivity according to VDI 2055 must be determined from the nominal values which are stated.

INSULATION MATERIAL CODE

The insulation material coded consists of 5 pairs of numbers Each pair of numbers describes a different characteristic of the product.

As an example, the insulation material code for Power-teK WM 640 is given here.



EUROFINS INDOOR AIR QUALITY STANDARD

Eurofins Scientific is an international life sciences company, which provides comprehensive analysis and testing services to customers from various sectors of industry, including the pharmaceutical, food and environmental industries. As an innovative and strongly quality-oriented international provider in this sector, Eurofins is in an ideal position to help manufacturers to comply with increasingly stringent quality and safety standards and fulfil official regulations throughout the world.
The Eurofins Indoor Air Comfort Gold certificate fulfils various requirements, for example those of the Finnish M1 certification, the German quality mark 'Der Blaue Engel' for low emission heat insulation materials and ceiling linings for use in buildings, or the requirements of the French AFSSET programme. As the certification procedure is based on ingoing tests, inspections and audits, the result not only provides the current status, but also ensures compliance with the requirements in the future.

MARINE EQUIPMENT DIRECTIVE (MED)

Compliance with marine safety and environmental regulations
The objective of the Marine Equipment Directive is:

- To ensure and improve safety at sea and to prevent marine pollution by means of a unified application of international regulations (IMO conventions and resolutions as well as relevant international testing and product standards) with regard to the products under consideration.
- Safeguarding of free trade and unrestricted use within the European Economic Community (EEC/EEA), consisting of the EU and the EFTA member states.

The Directive requires the certification of certain items of equipment and components which are used on board ships. Basic requirements with regard to the product are specified, as well as with regard to the manufacturing company. Conformity monitoring includes both the construction as well as the manufacturing process.
All of our listed products are certified according to the requirements which are specified in the EU Directive of the European Council (96/98/ EC – Module B and D), and have been tested according to the IMO FTP Code and other applicable standards.
Products with MED approval are labelled with the steering wheel symbol. In addition, at locations where products are produced for the marine market, compliance with the relevant quality standards stated in Module D of the above marine equipment directive is regularly inspected. These certificates are published on our web page.

ASTM STANDARDS

The American Society for Testing and Materials is an international standardisation organisation which is based in the USA. It publishes technical standards for goods and services and is a recognised international testing and standardisation organisation. The main emphasis of its work is on the development of standardised testing and analysis methods.
ASTM certifications are especially required for export or international investment projects which are planned and implemented by American companies.
For further information about our ASTM product properties and specification texts, please refer to www.knaufinsulation-ts.com.

FIBRE QUALITY CONTROL

EUCEB CERTIFICATION

The European Certification Board for Mineral Wool Products is an independent institution which continuously tests and certifies the compliance of Mineral Wool products with 'designation Q' of ordinance (EC) no. 1272/2008 of the European Parliament and Council. This ensures that the products must be declared as non-carcinogenic. All Knauf Insulation Mineral Wool products are EUCEB certified.
Further information: www.euceb.org

RAL QUALITY MARK

- Visible, independent and objective evidence of the special quality of products and services. This means that it stands for especially high quality and is particularly trustworthy due to its neutrality.
- Indicates that the product of service fulfils all of the essential requirements for the especially high quality characteristics. Consumers can therefore be sure that the stringent regulations include essential characteristics, which are important for the use of a product or service.
- Stands for reliable compliance with this high quality standard due to continuous internal and independent external monitoring which is voluntarily undergone by manufacturers and suppliers. This is ensures the dependance of the RAL quality mark.

Further information about the RAL quality mark:

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SOUND ABSORBING EFFECT OF MINERAL WOOL BOARDS

Due to their open fibrous structure, Mineral Wool panels generally have good sound absorbing properties. Sound absorption designates the capability of a material or component to reduce the intensity of the sound which falls on it and not to echo it back into the environment.
This is also referred to as the sound deadening characteristic.
The specific design for individual cases, taking into account the thickness, weight and possible the lamination of the surface, often presents great challenges due to the fundamental complexity of acoustic applications.
The effectiveness of a building component as a sound absorber is stated by the degree of sound absorption (α). The so-called "practical degree of sound absorption (α_p) is a measure of the damping effect of a component at six frequencies, each of which is separated by an octave. The values are usually between 0.0 and 1.0, whereby 1.0 corresponds to complete absorption of sound at the particular frequency under consideration. The factors which influence the sound absorption effect of Mineral

Wool panels are:
1. Density
2. Surface characteristics (laminated or non-laminated)
3. Thickness of the material

For Mineral Wool panels, the first parameters in the list can be almost completely neglected if only sound absorption is considered.
This is essentially determined by the thickness of the Mineral Wool panel. An increase in the thickness of the material is associated with an improvement of the sound absorbing effect in the lower frequency range.

However, this is only true if a material with an 'open structure', e.g. glass fibre mat or glass fibre fabric is selected as the covering lamination.

In contrast, lamination with films, in particular aluminium film (aluminium, AluR) cannot be used for the required sound absorption.

SOUND ABSORPTION VALUES AND CLASSIFICATION OF MINERAL WOOL BOARDS
The following table shows the α_p values and the classification results for various thicknesses of Mineral Wool boards (density 50kg/cbm; natural, unlaminated surface).

		Frequency range [Hz]						Classification			
	Practical sound absorption coefficient (α_p)	125	250	500	1000	2000	4000	Assessed sound absorption coefficient (α_p) [EN ISO 11654:1997]	Classification of sound absorption [EN ISO 11654:1997]	Verbal a ssessment [VDI 3775 (2000-02)]	Noise Reduction Coefficient [ASTM C423:1989]
Thickness (mm)	**20**	0,05	0,20	0,50	0,75	0,85	0,90	0,50 (MH)	D	Absorbent	0,55
	50	0,25	0,70	1,00	1,00	1,00	1,00	1,00 (MH)	A	Highly absorbent	0,95
	100	0,60	1,00	1,00	1,00	1,00	1,00	1,00 (MH)	A	Highly absorbent	1,05
	200	0,90	1,00	1,00	1,00	1,00	1,00	1,00 (MH)	A	Highly absorbent	1,05

For the actual selection of a component for sound absorption, other factors need to be considered in addition to the purely absorptive effect.
For example, with regard to the structural design the strength of the product, derived from the density, has to be considered. The selection of the surface lamination essentially depends on the mechanical wear of the surface or the hygiene requirements of the particular application.

EXPLANATIONS FOR VDI 6022

The importance of VDI 6022 for the planning and construction of HVAC systems (air conditioning systems)
The VDI 6022 is a technical guideline with a normative character, which is used throughout Europe. It is not a product standard which regulates the requirements for individual components. Because of this, Mineral Wool products can neither be tested nor categorised according to this standard.
In fact, VDI 6022 governs the hygiene requirements for air conditioning systems and devices as a whole, whereby the particular fluid dynamics of the design are also considered.
VDI6022 requires inside surfaces of air-handling ducts to be 'technically sleek' and abrasion-proof in order to be mechanically cleaned without any damage.
Thus open cell insulation materials in contact with the airstream are not allowed; only exception is ruled for silencers, here the surface of insulation products needs to be protected by suitable material to prevent the contact of the insulation material with the air flow. This is the case for KI-products recommended for the use in silencers.

CERTIFIED MANAGEMENT SYSTEMS- POWER OF EFFICIENCY

As a responsible manufacturer, we have all our sites certified to four of the most important International Management Standards for sustainability; ISO 9001 (Quality Management), ISO 14001 (Environmental Management), ISO 50001 (Energy Management) and ISO 45001 (Health and Safety Management). The standards are all voluntary but internationally recognised as independently verifying a company's performance claims. In 2010, we became one of the first companies in our sector to achieve all four ISO standards for our organisation and all our plants in Europe, North America, Russia and CI.
We also strive that our suppliers are all certified ISO 14001 and therefore supporting suppliers that need help to achieve ISO 14001 standards of sustainability and keep a database of suppliers that informs us if their ISO has expired. We are developing good relationships with our suppliers and provide the best quality of materials from sustainable sources. ISO 14001 certification is now becoming a supplier pre-requisite for extracted raw materials that we input into our batch.
Our ISO Standards are certified by Tüv Nord.

DECLARE LABEL

Declare.

The International Living Future Institute (ILFI) is a nonprofit organization, which brings together individuals and organizations to build an ecologically-minded, restorative world for all people. ILFI runs the Declare program, a transparency platform and product database that is changing the materials marketplace and developing a green framework for living in a 21st-century world. To be certified by DECLARE, products are independently analyzed in forensic detail to ensure they do not contain any harmful or unhealthy chemical ingredients included on the International Living Future Institute's Red List.
Knauf Insulation's unfaced Glass Mineral Wool solutions with ECOSE Technology® are the first Mineral Wool products in rolls and slabs to be officially certified in Europe by the DECLARE label, marking a major breakthrough for building well-being and health.

DECLARATION OF PERFORMANCE (DOP)

The Declaration of Performance (DoP) is a key part of the Construction Products Regulation. Each construction product covered by the European harmonised standard or for which a European Technical Assessment has been issued, needs DoP and has to be CE marked. This helps increase transparency and improves the functioning of the Single Market.
DoP provides information on the performance of a product and is an official declaration, issued by the producer of the product. In our catalogue, we mostly show DoP's of products coming from our production plant Knauf Insulation d.o.o., Croatia, although some of them may be produced in other plants as well. For detailed information on the producer and related DoP please read the label on the pallet.

MISCELLANEOUS INFORMATION

DISPOSAL OF PRODUCT RESIDUES
In general, product data sheets are available for all of our products. These can be requested at any time. However, the waste disposal code number should be sufficient for all questions with regard to the disposal of the product.

This code number can also be found in our safety data sheets. These can be found on our website: www.knaufinsulation-ts.com.

With regard to the disposal of packaging material, Knauf Insulation relies on the support of the established service provider Interseroh (www.interseroh.de).

This company organises the collection of transport packaging from trade, industry and commerce and disposes of the packaging in an environmentally friendly manner.

INTERSEROH
RECYCLING

FURTHER INFORMATION
All contracts and offers are based on our General Terms of Sale, Supply and Payment (see local price lists). Please observe the processing guidelines and the relevant standards and technical rules. Please also note that the responsibility for correct installation and compliance with the relevant building regulations lies with the planner and the constructor. Further information about products and the wide range of services from Knauf Insulation can be found under www.knaufinsulation-ts.com.

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KNAUF INSULATION
Technical Solutions

Our products save energy, cut emissions and are designed to make sure buildings and applications are good for the environment and keep people healthy, safe and well. Across our company, we have been working on sustainability for over a decade. We have focused on zero harm, reducing our energy use and emissions, recycling our production waste, incorporating circular economy principles and constantly campaigning for better and more sustainable buildings and applications. Over the past decade, we have achieved great things and we are proud of how we have changed our company, helped our colleagues, communities and customers and reduced our impact on the environment. But sustainability is a process of continuous improvement. We must do more for our people and our environment. That's why we've created our new sustainability strategy. We call the new strategy '**For A Better World**' because it builds on the success of our mission statement: "Our vision is to lead the change in smarter insulation solutions for a better world."

LIVING WITH
A GREEN HEART

LIVING WITH A GREEN HEART

The "Living with a Green Heart" initiative promotes a comprehensive approach to sustainable development with **emphasis on societal and social sustainable development**, placing an informed individual at the forefront of sustainable transformation of society. "Living with a Green Heart" presents a unique story and approach that encourages companies, organisations, and individuals to:

- ✔ Create sustainable products and solutions which can transform grey cities into green oasis, build safe and comfortable homes and lead to a better world for all of us.
- ✔ Lead social sustainability actions, cocreating a more informed and kinder future for ourselves and those that come after us.
- ✔ Build a friendlier and more responsible environment for employees at all levels and in all aspects, appreciating the diversity and improving our relationships, as well as the way we work, collaborate, and coexist within our environments.

CONTACTS

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42220 Novi Marof
ts@knaufinsulation.com
www.knaufinsulation-ts.com

Browse country specific contacts:

FOR FURTHER INFORMATION VISIT
OUR WEBSITE WWW.KNAUFINSULATION-TS.COM/

Premium member of eiif

COMPANY PROFILE

Knauf Insulation is one of the most respected names in the insulation industry worldwide with over 40 years of experience and still growing fast. Over 6.000 employees in more than 40 countries and 29 manufacturing sites. Being part of the family-owned Knauf group, Knauf Insulation Technical Solutions provides solutions for customers' requirements in industry, marine applications, heating, ventilation and air conditioning. A profound market understanding and insulation know-how enables us to provide a broad range of products to meet your specific needs.

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