

POWER-TEK WM 640/660/680 GSN



August 2023

with **ECOSE®** TECHNOLOGY



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.

PERFORMANCE

Max. service temperature	640 – 680 °C depending on density (EN ISO 18097)
Reaction to fire	A1 (EN 13501-1)
Apparent density	ca. 80 to 120 kg/m³ (EN ISO 29470)
Declaration of performance*	http://dopki.com/T430SEPCPR for WM 640 http://dopki.com/T430SFPCPR for WM 660 http://dopki.com/T430SGPCPR for WM 680

* for detailed information on DoP please check the product label

APPLICATION

Defined Power-teK applications:

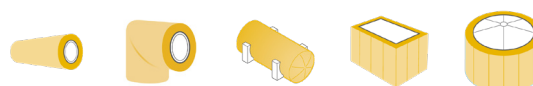
- Pipe insulation
- Pipe insulation elbows
- Furnaces & other equipment
- Tank walls & heat storage
- Boilers

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



STANDARDS

Knauf Insulation products are produced according 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), all certified by Tüv Nord.

CERTIFICATES (VALID FOR ALL):



VALID ONLY FOR WM 640/660:



CERTIFICATE VALID ONLY FOR WM 640

ASTM
C592-TYPE II

CERTIFICATE VALID ONLY FOR WM 660 / 680

ASTM
C592-TYPE III

challenge.
create.
care.

POWER-TEK WM 640/660/680 GSN



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SPECIFICATIONS

Description	Sign	Description/data													Unit	Standard
Thermal conductivity depending on temperature	g		Density (kg/m³)	MST	50	100	200	300	400	500	600	640	660	680	°C	EN 12667
	λ	WM 640	ca. 80	640	0,040	0,046	0,064	0,088	0,122	0,163	0,212	0,239	-	-	W/(mK)	
		WM 660	ca. 100	660	0,040	0,046	0,062	0,083	0,110	0,145	0,179	-	0,210	-		
		WM 680	ca. 120	680	0,040	0,047	0,062	0,082	0,107	0,140	0,173	-	-	0,200		
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
Silicone free	-	No emissions of lacquering disturbing substances													-	-
Melting point of fibres	g	≥ 1000													°C	DIN 4102-17
Specific heat capacity	C _p	1030													J/(kgK)	EN ISO 10456
Longitudinal air flow resistance	-	≥ 40 for WM 640													-	-
		≥ 50 for WM 660														
		≥ 65 for WM 680														
Designation code	-	WM 640 - MW-EN14303-T2-ST(+)-640-WS1-CL10													-	EN 14303
		WM 660 - MW-EN14303-T2-ST(+)-660-WS1-CL10														
		WM 680 - MW-EN14303-T2-ST(+)-680-WS1-CL10														

Declared material properties are obtained in the production process and ensured by the factory production control in accordance with the European Standard at the time of manufacture. Observing storage and handling guidelines will maintain performance within published tolerances.

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.

STANDARD FORMATS*

Thickness	30 - 120 mm
Length	2000 - 6000 mm
Width	500 / 1000 mm

*Other dimensions on request.



Knauf Insulation mineral wool products made with ECOSE® Technology benefit from a formaldehyde-free binder made from rapidly renewable bio-based materials instead of petroleum-based chemicals. The technology has been developed for Knauf Insulation's mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Insulation products made with ECOSE® Technology contain no dye or artificial colours – the colour is completely natural.

Knauf Insulation d.o.o.

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