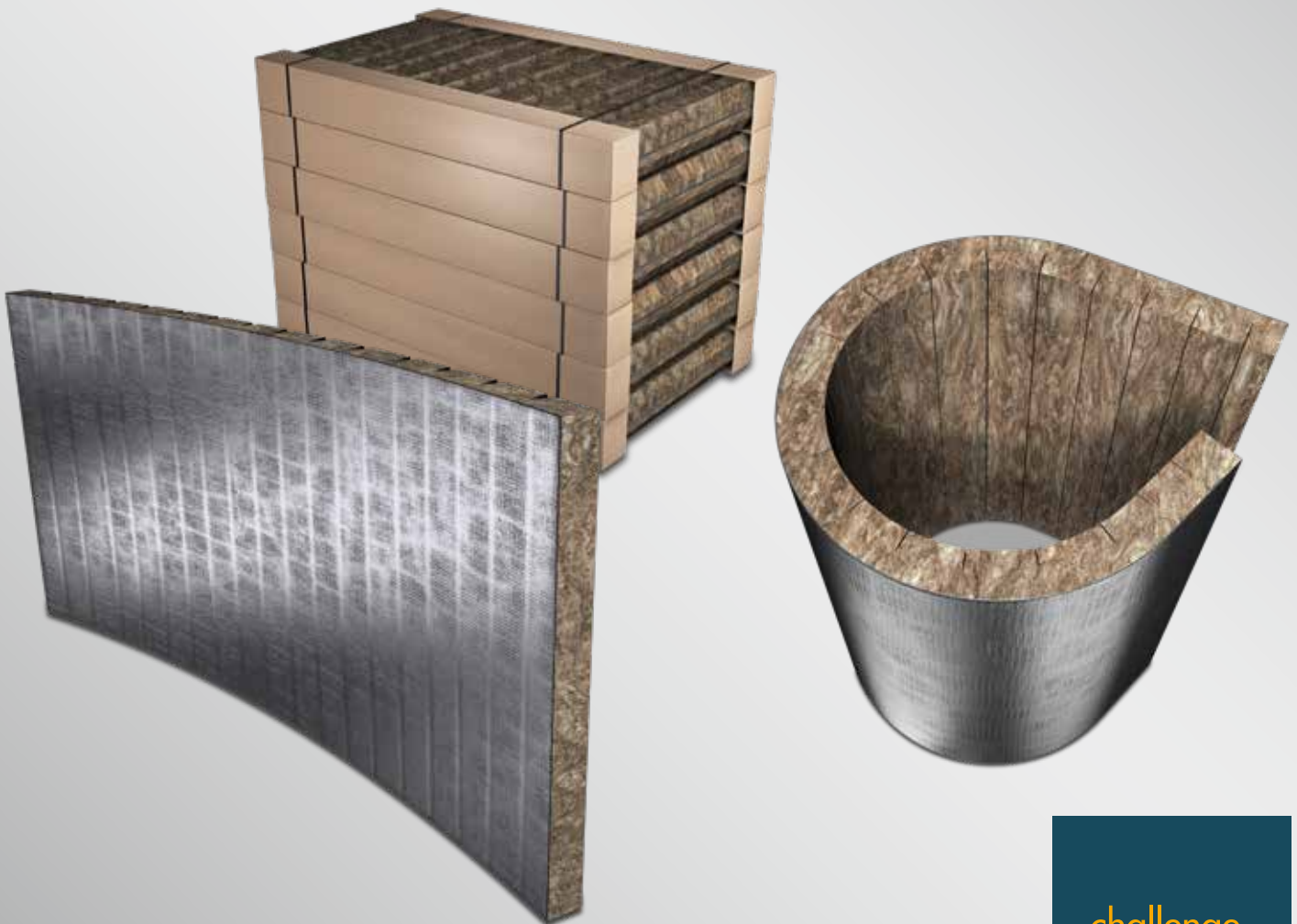
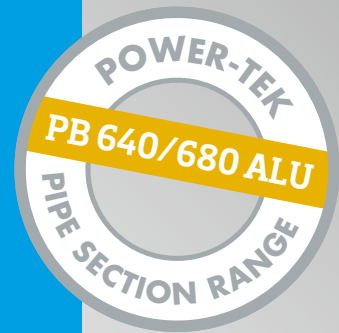


INDUSTRIAL PIPE BELT POWER-TEK PB 640 ALU AND PB 680 ALU

High temperature resistant solution for thermal insulation of bigger diameter pipework.



DESCRIPTION

The Industrial Pipe Belts Power-teK PB 640 ALU and Power-teK PB 680 ALU are a pre-fabricated mineral wool segment mats. The mineral wool base material (Power-tek BD 640/Power-teK BD 680) is designed to provide excellent thermal conductivity performance and suit high maximum service temperature (MST). Mounting and fixing is easy and swift. As Power-teK PB 640 ALU/Power-teK PB 680 ALU are delivered in flat form, they offer advantages as well in logistics as in on-site-handling when compared to standard big size pipe sections.

APPLICATIONS

Industrial Pipe Belts Power-teK PB 640 ALU / Power-teK PB 680 ALU are used for the thermal insulation of big diameter pipework with the side effect of sound damping characteristics.

The product's density and physical properties are designed to provide a technical matching supplement to the range of Power-teK PS 680 pipe sections.

FIRE BEHAVIOUR

Power-teK PB 640 ALU / Power-teK PB 680 ALU are classified as non-combustible class A1 and have melting point of fibres > 1000 °C.

THERMAL INSULATION

Power-teK PB 640 ALU/Power-teK PB 680 ALU offer excellent thermal insulation properties for industrial applications. (Detailed data on back side of this leaflet.)

MAX. SERVICE TEMPERATURE (MST)

Power-teK PB 640 ALU has a MST of 640 °C. Power-teK PB 680 ALU has a MST of 680 °C.

FEATURES & BENEFITS

Feature	Owner/Operator	Specifier	Wholesaler	Installer
Logistic advantages (volume)	✓		✓	✓
No need of subconstruction (spacers)	✓	✓		✓
Precise fit (inner and outer diameter)				✓
Length 500 mm or 1000 mm - light weight				✓

TECHNICAL DATA POWER-TEK PB 640 ALU/POWER-TEK PB 680 ALU

Properties	Symbol	Description/Data	Unit	Test method/Standards
Maximum service temperature	MST(+)	640/680*	°C	EN 14706
Thermal conductivity in relation to mean temperature for PB 640 ALU	ϑ	50 150 200 300	°C	EN 12667
	λ	0,039 0,054 0,064 0,091	W/(m·K)	
Thermal conductivity in relation to mean temperature for PB 680 ALU	ϑ	100 150 200 300	°C	EN 12667
	λ	0,047 0,054 0,063 0,087	W/(m·K)	
AS-Quality	–	≤ 10	ppm	EN 13468
Density	ρ	ca. 80/120	kg/m ³	EN 1602
Water absorption	W_p	≤ 1,0	kg/m ²	EN 1609
Reaction to fire	–	A1	–	EN 13501-1
Melting point of fibres	–	≥ 1000	°C	DIN 4102-17
Silicone free	–	Manufactured without addition of silicone oil	–	–
Water vapour diffusion equivalent air layer thickness	S_d	> 200	m	EN 12086

* In case Power-teK PB 640 ALU / Power-teK PB 680 ALU shall be used in a multi-layer application calculated temperatures at boundary surfaces between the layers shall not exceed a value of 180°C It may become necessary to increase the thickness of the first layer.

ECOSE® TECHNOLOGY

Knauf Insulation mineral wool products 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.



INSTALLATION-GUIDE/TYPICAL INSTALLATION AS PHOTO DOCUMENTARY

1



Delivered flat on pallets the material is easy to store and handle – even if space on site is limited. A half shell can be immediately built when the trapezoid-belt is taken from the package.

2



Separate two step mounting of custom-fitted pipe segments (each segment covering 180° of the circumference).

3



The pipe-shell will be temporarily held by tension belts or rubber straps to ease final fixing.

4



Longitudinal seams are closed with alu straps and circular seams are sealed with standard alu tape (recommended width: = min 50mm).

5



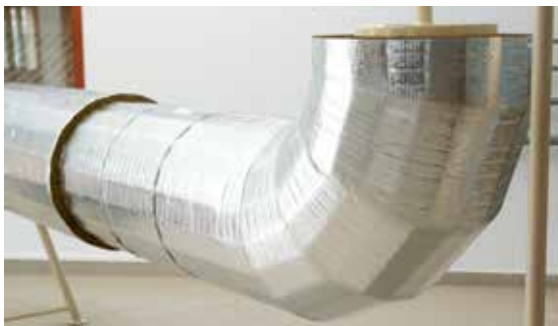
In the last step the pipe segments need to be fixed with metal straps. Please consider national norms with regards to dimensioning.

6



Apart from linear meters Knauf Insulation also offers pre-cut elbows. These are as well delivered in flat form (a set of segments to cover one elbow per each box).

7



The result is a perfectly fitting pipe and elbow shell with excellent properties (thermal conductivity, stability & compressive strength, visual appearance).

BENEFITS

- Superior heat insulation
- Temperature-resistant
- Non-combustible
- Water-repellent
- Easy to handle
- Sound damping
- Compression-resistant



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www.ki-ts.com

EXPER-TEAM ONLINE

Watch out our application videos available online at www.ki-ts.com/exper-team



Set of segments for elbow insulation

HANDLING & STORAGE

Power-teK PB 640 ALU / Power-teK PB 680 ALU are supplied in flat form. Product information is mentioned on every pack. Pipe Belts shall neither be stored outdoors nor exposed to the elements.

DOWNLOAD DOP

www.dopki.com/T4305VP (Power-teK PB 640 ALU)

www.dopki.com/T4305SP (Power-teK PB 680 ALU)

PRODUCT RANGE (STRAIGHT PIPES)

Length: 500/1000 mm
Inner Diameter: 356–1010 mm
Thickness: 40–120mm

PRODUCT RANGE FORM PARTS*

- Precisely fitting elbows matching the size of pipe belts
- Special matching sizes for multi-layer applications on request

*on request / project supply

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 5.500 employees in more than 35 countries and 38 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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