

## POWER-TEK CM 450 ALU



January 2023



with **ECOSE®** TECHNOLOGY

### 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  $\geq$  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.

### PERFORMANCE

Max. service temperature	450 °C (EN ISO 18097)
Service temperature aluminium facing	$\leq 80$ °C
Reaction to fire	A1 (EN 13501-1)
Density	ca. 40 kg/m <sup>3</sup> (EN ISO 29470)
Declaration of performance*	<a href="http://dopki.com/T430SHPCPR">http://dopki.com/T430SHPCPR</a>

\* 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
- 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**

### BENEFITS

- ✓ Highly flexible
- ✓ Firm
- ✓ Easy to cut
- ✓ Optimised packaging (less waste)
- ✓ Protection against water vapour
- ✓ Nice visual appearance of final application
- ✓ 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



challenge.  
create.  
care.

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## SPECIFICATIONS

Description	Sign	Description/data								Unit	Standard
Thermal conductivity depending on temperature	$\lambda$	50	100	150	200	250	300	400	450	°C	EN 12667
	$\lambda$	0,044	0,054	0,067	0,083	0,104	0,130	0,202	0,250	W/(mK)	
Water soluble chloride ions (AS quality)	-	≤ 10								ppm	EN ISO 12624
Water absorption	$W_p$	≤ 1,0								kg/m <sup>2</sup>	EN ISO 29767
Water vapour diffusion equivalent air layer thickness ALU	$s_d$	≥ 200								m	EN 12086
Silicone free	-	No emissions of lacquering disturbing substances								-	-
Melting point of fibres	$\theta$	≥ 1000								°C	DIN 4102-17
Specific heat capacity	$c_p$	1030								J/(kgK)	EN ISO 10456
Designation code	-	MW-EN14303-T3-ST(+)/450-WS1-MV2-CL10								-	EN 14303

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.

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

Pipe diameter DN	80/100/120	
> 2000	✓	✓ - Simple installation
300-2000	✗	✗ - Installation with slightly increased effort

## 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	80/100/120 mm
Width	500 mm
Length	3000/2500/2500 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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