POWER-TEK LM 450 ALU
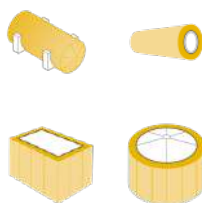
POWER-TEK

November 2021

APPLICATION RANGE

DESCRIPTION

Power-teK LM 450 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 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.

TECHNICAL DATA

Maximum service temperature	450 °C (EN 14706)
Service temperature aluminium facing	≤ 80 °C
Reaction to fire	A1* (thickness ≥ 30 mm) (EN 13501-1)
Density	ca. 40 kg/m³ (EN 1602)
Declaration of performance**	http://dopki.com/T4305HP

*A2-s1,d0 (thickness: 20,25 mm)

** for detailed information on DoP please check the product label

Description	Sign	Description/data							Unit	Norm
Thermal conductivity depending on temperature	ϑ	50	100	150	200	300	400	450	°C	EN 12667
	λ	0.044	0.054	0.067	0.083	0.130	0.202	0.250	W/(mK)	
Water soluble chloride ions (AS quality)	–	≤ 10							ppm	EN 13468
Water absorption	W_P	≤ 1							kg/m²	EN 1609
Water vapour diffusion equivalent air layer thickness ALU	s_d	≥ 200							m	EN 12086
Silicone free	–	No emissions by 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–T4–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.

CERTIFICATE

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ADDITIONAL INFORMATION

Application

District heating lines, Containers, Industrial plants, Pipe lines, Heat storage tanks
The product is recommended for thermal, fire and sound insulation of the defined applications within technical insulation.

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 it is recommended to store the product indoors or alternatively under a roof and without direct contact to the ground (keep palletised).

Standard formats*

Thickness	30 - 120 mm
Width	500 /1000 mm

* Other dimensions on request.

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.

ISO 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.

Knauf Insulation d.o.o

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