



powermat®

High temperature glass
needle mat

PRODUCT CHARACTERISTICS

Good **acoustic absorption** and **thermal insulation** in the area of the **automotive**, **ship** and **building construction**, **industrial furnaces** as well as **technical insulation** and **industrial construction** in a **high temperature range**.

TECHNICAL CHARACTERISTICS

Material	textile glass fiber powerfil®	Combustibility (DIN 4102)	non combustible
Transformation temperature (DIN ISO 7884-8)	761 °C	Binder	binder free
Filament diameter (ISO 1888)	13 – 19 µm	Acid resistance (PA 013, 16 % HCl, 23 °C, 10 min)	≥ 99,0 % *
Ignition loss (PA 003, according to ISO 1887)	≤ 2,0 % *	Alkali resistance (PA 015, 20 % NaOH, 50 °C, 24 h)	≥ 90,0 % *
Volume shrinkage (700 °C, 2 h)	≤ 0,0 – 0,1 % *		

CHEMICAL COMPOSITION

	SiO ₂	Al ₂ O ₃	CaO	TiO ₂	K ₂ O + Na ₂ O
in weight - %	56 – 62	11 – 15	20 – 25	2 – 3,2	≤ 1

THERMAL CONDUCTIVITY λ (DIN 52612-2)

	[°C]	50	100	200	300	400	500	600	700	800
density 110 kg/m ³ , fiber Ø 14 µm	[W/mK]	0,05	0,06	0,08	0,11	0,16	0,21	0,28	0,37	0,48
density 114 kg/m ³ , fiber Ø 18 µm	[W/mK]	0,03	0,04	0,07	0,10	0,15	0,22	0,31	0,42	0,55
density 150 kg/m ³ , fiber Ø 14 µm	[W/mK]	0,04	0,04	0,06	0,08	0,11	0,16	0,21	0,27	0,35

* in-house DBW test specification

The technical information does not constitute a quality warranty. The suitability for a specific purpose must be examined. Subject to change without notice.



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