

Technical Data Sheet

S 5000[®]

03/10 Hü (D)
replaces edition 08/08 Hü

... High-tech – asbestos-free, highly heat resistant insulation material

Material Composition

The insulation material S 5000[®] was developed as an asbestos substitute. It completely replaces all formerly used materials containing asbestos. Its main material components are based on aramide-strengthened mineral fibres bound to phenolic resins.

Special Material Characteristics

S 5000[®] is characterised by:

- **extremely high ablation resistance**
- **strong thermal insulation**
- **low density**
- **high thermal stability**
- **low ablation rate**
- **resistance against sea water and general chemicals**
- **low-temperature resistance**
- **electrical insulation properties**

Range of Applications

Protecting objects at hot operating areas with sometimes short-term flame treatment This grade is also suitable for components found, for instance, in rocket engines and welding tables that are subjected to extremely high temperatures for a very short time.

Technical data*:

Max. service temperature		
• long-term	230	°C
• short-term	250	°C
Coefficient of thermal conductivity λ		
• at ambient temperature	0.35	W/mK
• at 200 °C	0.41	W/mK
DIN 52 612		
Linear coefficient of thermal expansion (length and width direction)		
DIN 53 752	18·10 ⁻⁶	1/K
Compressive strength		
• at ambient temperature	200	N/mm ²
• at 200 °C	90	N/mm ²
EN ISO 604		
Flexural strength		
• at ambient temperature	100	N/mm ²
EN 63		
Flexural modulus of elasticity		
• at ambient temperature	9000	N/mm ²
EN 63		
Density	1.6	g/cm ³
Water absorption / 24 h		
DIN 53 495	< 1	%

*) Further technical details upon request

Delivery Information:

Standard thickness: 3 ... 30 mm
Plane parallelism (on 1 m length): 0.1 mm
Special finish grinding upon request
Special dimensions upon request

Specifications are subject to alteration due to technical development. The standard values given in this data sheet are not part of any contract.