



KAOWOOL INSULATING PRODUCTS

KAOWOOL S



Kaowool S is a flexible, insulating refractory material processed from high purity bulk fibre. These low “shot” content (un-fiberised particles), thermally efficient insulation materials are excellent for use in a variety of applications. Features of **Kaowool S** include low heat storage, excellent resistance to thermal shock and very low thermal conductivity. It contains no organic binder, thus will not emit any offensive odours or contaminate furnace atmospheres.

The thorough needling of the product, which interlocks fibres in the thickness direction, enhances the strength of **Kaowool S**. This reduces the possibility of delamination and increases handling and finished strength without any loss of flexibility. **Kaowool S** also will not lose strength in service.

PHYSICAL PROPERTIES		THERMAL PROPERTIES	
Maximum temperature rating (°C)	1260*	<u>Approximate Thermal Conductivity (W/m.K)</u>	
Tensile Strength (kPa)	>40	Mean Temp	128 kg/m ³
Linear Shrinkage (%) 24 Hr @1000°C	≤3	400°C	0.09
CHEMICAL PROPERTIES		600°C	0.15
Chemical Analysis % (after firing)			
Al ₂ O ₃	≥45		
SiO ₂	≥53		
Fe ₂ O ₃	≤0.5		

MATERIAL PACKAGING

Kaowool S is available in four densities (64, 96, 128 & 160 kg/m³) and in a range of thicknesses from 13mm up to 50mm. Rolls are 610mm wide and available in the following lengths:

Thick (mm)	Blanket Density (kg/m ³)			
	64	96	128	160
13	15	15	15	15
25	7.6	7.6	7.6	7.6
50	3.8	3.8	3.8	-

TYPICAL APPLICATIONS

- Hot face and back-up insulation for furnaces, kilns, refinery process heaters, petrochemical reactors and ductwork.
- Linings on steam turbines
- High temperature expansion joints
- Acoustic insulation of gas turbine engines
- Sealing for Soaking pits, furnace covers and doors
- Filtration for hot gases and liquids.



PRODUCT INFORMATION SHEET

CHEMICAL PROPERTIES

Kaowool S has excellent resistance to chemical attack, being resistant to most acids (except hydrofluoric and phosphoric) and many alkalis. They are unaffected by oil, water or steam. The product can however, absorb water without chemical attachment. Thermal and physical properties are restored upon drying.

Standard Fibre should not be subjected to reducing atmospheres at high temperature

* CONTINUOUS SERVICE RATING

The upper temperature use limit for aluminosilicate fibre can vary somewhat. It is dependent upon the circumstances and requirements of specific applications and practical experience is likely to provide the final recommendation.

The figures quoted as maximum temperature ratings are given as a guide, and represent in general terms the maximum temperatures for continuous use consistent with reasonable changes in properties such as shrinkage and resiliency. Where high temperature stability is required over long periods, or where the environmental conditions are severe, it is advisable to impose a lower service limit.