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## DESCRIPTION

Saffil Mat is a high temperature, un-needled, polycrystalline wool product. It is produced by a unique solution extrusion process which ensures the highest level of chemical purity and lowest level of 'shot' (non-fibre particles). The Mat is completely inorganic and retains its flexibility and thermal properties in many working environments, up to 1600°C. Saffil Mat can be used in a wide variety of applications and is especially suited to environments where the presence of shot is undesirable or where resistance to corrosive agents is essential.

## GENERAL CHARACTERISTICS

Saffil Mat has the following outstanding characteristics:

- High temperature stability (up to 1600°C)
- Low thermal conductivity
- Virtually 'shot' free
- Resistance to thermal shock & chemical attack
- Excellent flexibility & resiliency
- Insoluble in water

## TYPICAL APPLICATIONS

- High temperature furnace, boiler & kiln linings
  - Blast, forging, re-heat & heat treatment
  - Ethylene, catalyst & sulphur heaters and reformers
  - Porcelain, refractory, laboratory & dental kilns
- Speciality applications
  - Filtration
  - Acoustic insulation
  - Filler for insulating textile structures
  - Semiconductor processing & fuel cell components

## TYPICAL PRODUCT PARAMETERS

<i>Saffil Mat</i>	
<b>Typical Chemical Analysis (fibre wt. %)</b>	
<i>Al<sub>2</sub>O<sub>3</sub></i>	95 - 97
<i>SiO<sub>2</sub></i>	3 - 5
<i>Trace</i>	<0.5
<b>Physical Properties</b>	
<i>Colour</i>	White
<i>Classification Temperature (°C) *</i>	1600
<i>Median Fibre Diameter (microns)</i>	3 - 4
<i>Product Density (kg/m<sup>3</sup>)</i>	35
<i>Specific Heat at 1000°C (J/kgK)</i>	1000
<b>Thermal Conductivity (W/mK)</b>	
<b>Mean Temp.</b>	
800 °C	0.29
1000 °C	0.39
1200 °C	0.51
<b>Permanent Linear Shrinkage (%) 6 Hour Soak</b>	
1500 °C	<4

\*Classification Temperature is not a definition of the operational limit of these products, especially when long term physical or dimensional stability is a factor. For certain applications continuous use temperature limits may be significantly reduced. For assistance or clarification please contact your nearest Unifrax Engineering office.

## AVAILABILITY

Thickness (mm)	Roll Width (mm)	Roll Length (m)
35	610	14.8

All product dimensions provided are nominal dimensions.

## HANDLING INFORMATION

A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on handling precautions and emergency procedures. This must be consulted and fully understood before handling, storage or use.

Supplied by:

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