# **Product Information Sheet**

# Saffil

## Saffil® Paper

### DESCRIPTION

Saffil Papers are manufactured from high purity polycrystalline wool, blended with specially selected organic binders to give a flexible paper with exceptional characteristics. This high temperature paper can be exposed to temperatures up to 1600°C, has excellent chemical resistance and is virtually free of 'shot' (unfiberized particles). Advanced production techniques ensure a highly uniform structure enhanced by low thermal conductivity, good handling strength and a smooth surface. Saffil Papers are available in a range of thicknesses and roll sizes.

#### **GENERAL CHARACTERISTICS**

Saffil® Paper products have the following outstanding characteristics:

- High temperature stability (up to 1600°C)
- Excellent flexibility
- Easy to wrap, cut and shape
- Good handling strength
- Resistance to chemical attack



### **TYPICAL APPLICATIONS**

- Ferrous (Iron & Steel) High Temperature Expansions Joints and Setters for Heat Treating, Brazing, and metal forming processes. Vacuum Heat Treat and Metal sintering.
- Ceramic & Glass
  Kiln Refractory Expansion Joints
- **Aerospace** Heat Shields, High Temperature Seals, Ablative Shields
- General Use & Other Industries
  Hydrogen & Reducing Atmosphere Furnaces,
  Expansion Joints, Gaskets & Seals, Battery
  Separator Media

Information on other applications is available upon request. Any new and/or special use of these products, whether in an application listed in our literature, is advised to be submitted to our Alkegen Application Engineering department for review and guidance on material selection.

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#### **TYPICAL PRODUCT PARAMETERS**

	Saffil 97 Paper	Saffil 97L Paper	Saffil 97LH Paper
Physical Properties			
Color	White	White	White
Classification Temperature*	1600°C (2912°F)	1600°C (2912°F)	1600°C (2912°F)
Density, kg/m³ (lb/ft³)	170 (10.6)	128 (8)	112 (7)

Chemical Properties			
Typical Fiber Chemical Analysis (wt. %)			
Al <sub>2</sub> O <sub>3</sub>	97	97	97
SiO <sub>2</sub>	3	3	3
Trace Elements	< 0.5	< 0.5	< 0.5
Loss On Ignition (wt. %)	7%	8%	0%

Mechanical Properties			
Average Tensile Strength (EN 1094-1)			
Tensile Strength, kPa (psi)	500 (73)	455 (66)	50 (7)

\*The Classification Temperature is not a definition of the operational temperature use limit of these products, especially when long-term physical or dimensional stability is a factor. The classification temperature is the temperature at which irreversible linear shrinkage does not exceed a given value after a 24-hour heat soak test. For applications where long-term stability is not a requirement, products may be successfully used at temperatures well in excess of their Classification Temperature.

For continuous use applications requiring long-term stability, routine practice is to utilize materials in respect to their continuous use temperature. For polycrystalline wools, the Classification Temperature is also representative of it's Continuous Use Temperature. The Continuous Use Temperature is a recommended maximum operating temperature for the material usage under clean, oxidizing atmosphere conditions. For certain application conditions (specific chemical contaminants, reducing atmospheres, etc.), the Continuous Use Temperature may be reduced.

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes. For assistance or further clarification, please contact your nearest Alkegen Application Engineering office.



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### Saffil® Paper

### SIZE & AVAILABILITY

Saffil Papers are produced and distributed worldwide; the standard roll sizes and thickness offerings are shown below. Variations featuring other dimensions may be obtainable upon inquiry. To obtain information on specific packaging options please reach out to your nearest Alkegen representative.

### Saffil 97 Paper

Thickness, mm (in)	Width, mm (in)	Length, mm (ft)
1 (1/32)	550 (21.65)	19000 (62.34)
2 (1/16)	550 (21.65)	19000 (62.34)
3 (1/8)	550 (21.65)	19000 (62.34)

## Saffil 97L Paper

Thickness, mm (in)	Width, mm (in)	Length, mm (ft)
2 (1/16)	610 (24)	30480 (100)
3 (1/8)	610 (24)	15240 (50)
6 (1/4)	610 (24)	7620 (25)

#### Saffil 97LH Paper

Thickness, mm (in)	Width, mm (in)	Length, mm (ft)
2 (1/16)	610 (24)	30480 (100)
3 (1/8)	610 (24)	15240 (50)
6 (1/4)	610 (24)	7620 (25)

### HEALTH AND SAFETY 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.

The test data shown are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes.

The following are registered trademarks of Alkegen: Saffil.

Product Information Sheets are periodically updated by Alkegen. Before relying on any data or other information in this Product Information Sheet, you should confirm that it is still current and has not been superseded. A Product Information Sheet that has been superseded may contain incorrect, obsolete and/or irrelevant data and other information.

#### Alkegen

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