

HIGH TEMPERATURE INSULATION Data Sheet

# SAFFIL

# SAFFIL M-FIL PRODUCT DATA SHEET



#### Introduction

M-FIL blanket is formed from high temperature MULLITE fibres. It has been specifically designed for demending applications and has a classification temperature of 1600°C. M-FIL blanket utilises an innovative stitching/self needling process, which produces a product with significantly improved gas erosion characteristics.

These and other properties make M-FIL suitable for the most demanding high-end insulation applications.

# **Health and Safety**

Mullite fibres are not subject to European legislation 97-69EC. M-FIL has been designed and made to give not only a narrow band of fibre diameter distribution but also does not form crystobalite when exposed to high temperatures.

#### **Properties and Benefits**

M-FIL blanket exhibits all the benefits associated with SAFFIL products. It's lightweight, low thermal mass properties enables it to cope with the most demanding industrial insulation applications.

#### Thermal conductivity

Controlled fibre diameter and low-shot has a direct bearing on thermal conductivity of fibre products. M-FIL is a significantly better insulator than other fibres by up to 50% in some cases. M-FIL is increasingly being used as fuel costs escalate and cost saving solutions are required. M-FIL more than meets these needs by cost effectively providing a stable, long lasting thermal barrier.

#### **Chemical Resistance**

M-FIL shows a good resistance to chemical attack and shows very good resistance to alkali and low Ph.

### Thermal Shock Resistance.

The low heat storage and fibrous structure avoid the problems normally caused by thermal shock. Faster cycle times are possible that offer advantages in the form of reduced fuel consumption and increased capacity.

## **Typical Applications.**

M-FIL blanket can be used in most module configurations. Modules can be supplied to any specification and anchoring systems installed / designed to your specific requirements.

M-FIL blanket is flexible and resilient and can be used for expansion gaps, seals and thermal backing in kilns.





# **M-FIL - Technical Data**

Classification Temperature			°C		1600	
Properties measured at	ambient (23 <sup>0</sup> C /	50% RH)				
Colour				White		
Solubility in water				Insoluble		
Odour				Odourless		
Fibre diameter (median)	Micron		3.0 - 3.5			
Shot content (Non fibrous		r	negligible			
Tensile Strength			kPa	3	38	
Bulk Density			g/cm <sup>3</sup>		0.1	
Properties when expos	ed to high tempe	erature		1		
Melting Point			°C	2	2000	
Thermal Conductivity						
Temp	800	1000	1200	1400		
W/mK	0.22	0.30	0.41	0.54		
Standard Availability						
	Density (Kg/m <sup>3</sup> )	Length (mm)	Width (mm)	Thickness (mm)		
Rolls (Nominal)	100	7200	620	25		

Standard Packaging:- M-FIL is supplied in rolls packed in cardboard cartons (570 x 570 x 670mm)

The values given herein are typical average values obtained in accordance with accepted testing methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice.

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