

# FireMaster<sup>®</sup> Blanket

## Product Data Sheet



### Product Description

FireMaster Blanket is a non-combustible, flexible matt manufactured from alkaline earth silicate fibres suitable for use in both cellulosic, hydrocarbon and jet fire protection applications. The patented fibre formulation used gives enhanced solubility in the human body together with excellent thermal and acoustic properties.

FireMaster Blanket has the same appearance as Refractory Ceramic fibre and can be used in the same range of fibre protection applications with equivalent thermal insulation performance. No binders are used during manufacture, thus there is no risk of smoke or toxic gas emission or loss of strength during a fire due to binder burn out.

FireMaster is easy to handle being flexible and resilient with good tensile strength. No special installation tools are needed and the blanket can be cut with a sharp knife. The blanket is supplied in rolls each marked with key production data, packed in a specially printed carton.

A significant number of fire tests have already proven the performance of the FireMaster Blanket for up to 4 hours in hydrocarbon fires and one hour in jet fires. Fire protection is achieved with lower thickness and weight than with other Mineral Fibre compositions.

### Benefits

- Product does not deteriorate with age
- Product will not support mould growth or vermin
- Product is flexible and will conform to the shape of substrates with ease
- Offers excellent thermal and acoustic performance

### Fire Protection Properties

- Non-Combustible in accordance with BS 476 : Part 4 : 1970
- Surface spread of flame classification Class O
- Can provide in excess of 120 minutes fire resistance

### Applications

- Ductwork fire protection
- Cable tray fire protection
- 'A' class and IMO HSC steel, aluminium and PVC composite bulkhead and deck insulation in high speed craft
- Upgrading of fire performance of composite panels to meet IMO room corner test requirements
- 'H' class and 'A' class steel bulkhead and deck fire protection for ships and offshore platforms
- Hydrocarbon and jet fire protection of process pipes and vessels
- Infill to fire doors and cladding panels
- Construction joints
- Cellulosic and hydrocarbon fire protection of structural steelwork

### Environmental & Health Safety

Superwool low biopersistent fibres manufactured by Morgan Advanced Materials are not classified as carcinogenic by IARC or under any national regulations on a global basis. They have no requirements for warning labels under GHS (Globally Harmonised System for the classification and labelling of chemicals).

In Europe, Superwool fibres meet the requirements specified under Note Q of European Regulation EC/1272/2008 (on Classification, Labelling and Packaging of substances and mixtures). All Morgan Advanced Materials Superwool low biopersistent fibre products are therefore exonerated from classification and labelling as hazardous in Europe.

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Properties	FireMaster Blanket
Colour	White, free from localized or dark staining
Classification Temperature, °C	1200
<b>Chemical Analysis, %</b>	
Silica, SiO <sub>2</sub>	64 - 66
Calcium oxide, CaO	24 - 31
Magnesium oxide, MgO	4 - 7
Aluminium oxide, Al <sub>2</sub> O <sub>3</sub>	Max 0.8
Others	Max 1.0
Leachable Chloride (ppm)	Max 20
Shot content >45 Microns	Max 50
Linear Shrinkage at 1100°C for 24 hrs, %	Max 4.0
Loss on ignition at 1000°C for 5 hrs, %	<0.1

Tensile Strength Along Direction	
Density, Kg/m <sup>3</sup>	
64	Min 2500 Kgf/m <sup>2</sup>
96	Min 4000 Kgf/m <sup>2</sup>
128	Min 5000 Kgf/m <sup>2</sup>
160	Min 6500 Kgf/m <sup>2</sup>
<b>Tolerances</b>	
Density, Kg/m <sup>3</sup>	-10%, +20%
<b>Length, mm</b>	
< 2500	-0, +25
2500 to 3660	-0, +50
3660 to 18500	-0, +100
> 18500	-0, +200
<b>Width, mm</b>	-0, +10

The FIREMASTER logo, where 'FIRE' is in a bold, italicized sans-serif font and 'MASTER' is in a larger, bold, italicized sans-serif font with a stylized flame-like graphic integrated into the letter 'M'.

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Thickness, mm	After Winding			
	64 Kg/m <sup>3</sup>	96 Kg/m <sup>3</sup>	128 Kg/m <sup>3</sup>	160 Kg/m <sup>3</sup>
6	-	-0, +4	-0, +4	-0, +3
13	-0, +4	-1, +3	-1, +3	-1, +3
19	-0, +6	-2, +5	-2, +4	-2, +4
25	-0, +7	-2, +5	-2, +5	-2, +5
38	-0, +7	-3, +6	-3, +6	-3, +6
50	-0, +10	-3, +6	-3, +6	-3, +6

Thermal Conductivity				
Mean temperature	64 Kg/m <sup>3</sup>	96 Kg/m <sup>3</sup>	128 Kg/m <sup>3</sup>	160 Kg/m <sup>3</sup>
1000°C	Typical Values			
	<0.60 W/mk	<0.41 W/mk	<0.35 W/mk	<0.30 W/mk

### Availability and Packaging

FireMaster is available in a wide variety of thicknesses and densities. See the table below for details. Standard size: 610mm or 1220mm wide. The roll length varies with thickness in order to standardise on the carton packaging dimensions. Each roll is identified with the product thickness density, grade and key production data. FireMaster Blanket is available as a plain blanket and is available in a strip form. The product is also available with custom protective coverings and finishes such as aluminium foil, glass cloth and steel mesh. Further details are available on request.

Density, Kg/m <sup>3</sup>	6mm	13mm	19mm	25mm	38mm	50mm
64		•	•	o	o	o
96		o	o	o	o	o
128	•	o	o	o	o	o
160	•	•	•	•	•	•
<b>Roll length</b>	<b>21.60m</b>	<b>14.64m</b>	<b>9.76m</b>	<b>7.32m</b>	<b>4.88m</b>	<b>3.66m</b>

• Available to order    o Available ex-stock

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