

DESCRIPTION

FireMaster 607™ 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 607 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 607 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 607 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.

HEALTH ASPECTS SUMMARY

FireMaster 607 was designed for enhanced solubility in lung tissues. Rats have been exposed 6 hours a day, 5 days a week during 2 years at an average concentration of 200 F/ml (about 200 to 300 times higher than the concentration found in production plants) without showing any significant increase in lung tumours or fibrosis.

APPLICATIONS

- '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
- Hydrocarbon and Jet fire protection of vessels
- Infill to fire doors and cladding panels
- Construction joints
- Cellulosic and hydrocarbon fire protection of structural steelwork
- Ductwork fire protection
- Cable tray fire protection

MAIN PROPERTIES

General Properties

- Colour : white with key production data printed on surface
- Linear shrinkage (24 hrs at 1000°C) <1%
- Loss on ignition (5 hrs at 1000°C) <0.1%

Fire Protection Properties

- Non-combustibility: IMO A799 (19) using ISO 1182-1990 (E) method
Approved product number under EU Marine Equipment Directive: 0062

All other properties of FireMaster 607 Blanket will be as the ceramic fibre based FireMaster Blanket, which are detailed in the following sections.

Fire Hazard Properties per ASTM E-84 Method

- Flame spread: zero
- Fuel contributed: zero
- Smoke developed: zero

FireMaster 607 Blanket is inert and resistant to mould growth and attack by vermin.

Thermal Insulation Properties

- For insulation under ambient conditions the following maximum thermal resistance (R value) figures may be used for calculation of overall thermal transmittance (U value).

Thickness of blanket	R value (M K/W)
25mm	0.73
38mm	1.11
50mm	1.46
75mm	2.19
100mm	2.92

Basis: Thermal conductivity of 96kg/m³ density measured at 20°C to BS 874 of 0.0342 W/MK.

Thermal Insulation Properties (continued)

FireMaster 607 provides good thermal insulation over its entire operating temperature range.

- Thermal conductivity (ENV 1094-7) at mean temperature of:

	64kg/m ³	96kg/m ³	128kg/m ³	160kg/m ³	192kg/m ³
200°C	0.07	0.06	0.06	0.06	0.06
300°C	0.09	0.08	0.08	0.07	0.07
400°C	0.12	0.11	0.10	0.09	0.09
500°C	0.17	0.14	0.13	0.12	0.11
600°C	0.22	0.17	0.16	0.15	0.14

Acoustic Insulation Performance

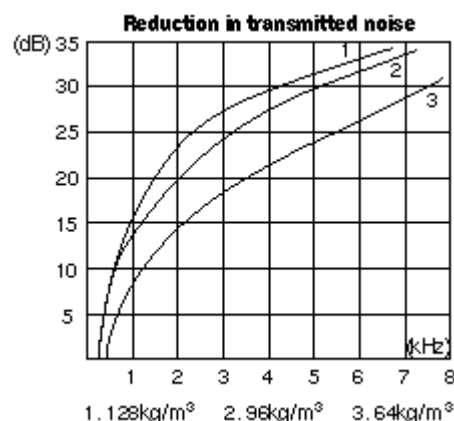
Sound Absorption

FireMaster 607 Blanket is an excellent acoustic insulation material. The data below is the result of tests carried out on FireMaster Blanket to BS 3638. Further details are available on request.

Frequency	Sound Absorption Coefficient	
	25mm/96kg/m	25mm/128kg/m
125	0.07	0.09
250	0.29	0.54
500	0.73	0.86
1000	0.92	0.94
2000	0.96	0.94
4000	0.99	0.96
Noise Reduction Coefficient	0.72	0.82

Sound Attenuation

The graph opposite summarises data obtained in acoustic tests carried out to ASTM E336-71, on the attenuation of noise transmitted through 25mm thick FireMaster Blankets as a function of sound frequency. Further details are available on request.



Availability and Packaging

FireMaster 607 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 to use one standard carton size. Each roll is identified with the product thickness density, grade and key production data.

FireMaster 607 Blanket is also available in a strip form and with custom protective coverings and finishes such as aluminium foil glass cloth and steel mesh. Further details are available on request.

Density kg/m	6mm	13mm	20mm	25mm	38mm	50mm	63mm	70mm
64		A	A	X	X	X		
96		X	X	X	X	X	A	A
128	A	X	X	X	X	X		
160	A	A	A	A	A			
190	A*	A*	A*	A*				
Roll length	21.60m	14.64m	9.76m	7.32m	4.88m	3.66m	2.3m**	2.3m**

**2300mm lengths are supplied as flat slabs not rolls. X = Available ex-stock A = Available to order

Your local contact:

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The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.

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