

Data sheet

ENGLISH

# FireMaster® board



**Main properties :**

**FireMaster® 350 board**

General handling properties at ambient conditions (23°C/50% RH)

● Colour	Tan
● Nominal density (kg/m <sup>3</sup> )	350
● Flexural strength (MPa) (modulus of rupture)	1.5
● Compressive strength (MPa) (10% reduction in thickness)	0.3

**Main properties :**

**FireMaster® 550 board**

General handling properties at ambient conditions (23°C/50% RH)

● Colour	Tan
● Nominal density (kg/m <sup>3</sup> )	550
● Flexural strength (MPa) (modulus of rupture)	3.0
● Compressive strength (MPa) (10% reduction in thickness)	1.1

**Description**

**FireMaster® 350 board**

Made exclusively from low bio-persistent alkaline earth silicate (AES) fibres, refractory fillers and a small amount of organic binders, this board is recommended for fire protection applications where lightweight, rigid panels are required. FireMaster® 350 board is available in thicknesses up to 50mm, is easy to cut and can be glued onto substrates for fast installation. The board is an excellent thermal insulator and is an ideal replacement for high density mineral wool saving weight and space.

**FireMaster® 550 board**

Made exclusively from low bio-persistent alkaline earth silicate (AES) fibres, refractory fillers and selected binders, this board is recommended for fire protection of structural elements where high strength and good machinable properties are required.

FireMaster® 550 board is available in large panel sizes and has good screw holding strength making it ideal for the construction of walls, ceilings and partition systems. FireMaster® 550 board has advantages of lower weight and lower thermal conductivity than calcium silicate boards together with the benefit of water repellence. In addition, FireMaster® 550 board has low dust emission during cutting operations.

**Applications**

- Compartment walls and ceilings from B15 standard upwards
- Infill in fire doors and cladding systems
- Floating floor systems in offshore and ship building industries
- Structural steel fire protection (FireMaster® 550 board)
- Fire damper systems insulation (FireMaster® 550 board)
- Core material for fire rated decorative veneered panel systems
- Ducting systems



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## Fire protection properties

- FireMaster® 350 board is non combustible to IMO A799 (19) - ISO 1182 1990(E) test method FireMaster® 550 board has low flame spread properties

## Specific strength test data for FireMaster® 550 Board

- Load bearing resistance FireMaster® 550 board test data for 40mm FireMaster® 550 Board 1200mm x 600mm with 2mm steel plate facing

Load applied	Load value	Maximum deflection measured
Centrally applied load on plate 80mm x 80mm	115kg 165kg	1.90mm 2.02mm
Edge applied load on plate 80mm x 80mm	115kg 165kg	1.56mm 1.66mm
Uniformly applied load	350kg 500kg	1.23mm 1.52mm

## Screw holding

- Screw holding strength for FireMaster® 550 Board to BS 3535: Parts 2: 1974

Penetration depth	Holding strength
13mm	13kg
18mm	20kg

## Acoustic insulation performance

### Sound absorption

The following data has been obtained from tests to BS EN 20354 : 1993 Method

### Sound absorption coefficient

Frequency (Hz)	550 board 20mm thick	350 board 20mm thick
125	0.14	0.08
250	0.23	0.33
500	0.19	0.63
1000	0.15	0.71
2000	0.18	0.77
4000	0.21	0.89
Noise reduction coefficient	0.19	0.61

## Availability and packaging

	350 board	550 board
Board panel size (length x width (mm))	1200 x 1000	1200 x 2000
Thickness (mm)	13, 20, 25, 40, 50	20, 25

For packaging details, please refer to the product price list

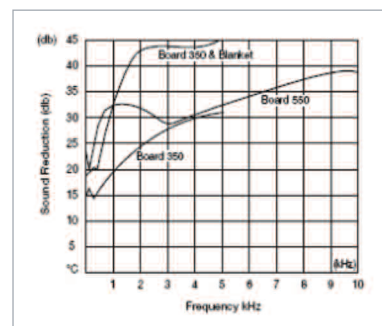
## Thermal insulation properties

- Thermal conductivity W/mK to ASTM C-201-68 at mean temperature of:

	350 board	550 board
200°C	0.07	0.11
300°C	0.08	0.12
400°C	0.09	0.13
500°C	-	0.14
600°C	0.12	-

## Sound attenuation

The graph below summarises data obtained in acoustic tests carried out to BS 2750 : 1980 standard on the reduction of sound through FireMaster® board as a function of sound frequency



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**SUPERWOOL®** is a patented technology for high temperature insulation wools which have been developed to have a low bio persistence (information upon request). **SUPERWOOL®** products may be covered by one or more of the following patents, or their foreign equivalents:

**SUPERWOOL® PLUS** and **SUPERWOOL® HT** products are covered by patent numbers: US5714421 and US7470641, US7651965, US7875566, EP1544177 and EP1725503 respectively.

A list of foreign patent numbers is available upon request to Morgan Advanced Materials plc.

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