

Data sheet

ENGLISH

FireMaster[®] MP Panel and MP Panel HY

Description

FireMaster MP Panel is a rigid and compact microporous insulation constituted of a mineral core available in both an hydrophilic and an hydrophobic version, which is encapsulated in a non-combustible cloth being typically E Glass.

Its engineered mineral matrix is designed for applications where the lowest thermal conductivity up to 1000°C (1832°F) is the main selection criteria.

FireMaster MP Panel features extremely good handling properties, low thermal conductivity coefficient giving it very good insulating properties in limited thickness allowing to design effective fire-resistant systems and enclosures where space optimization and reduction of weight are premium factors to be considered.

Environmental and Health Safety

FireMaster MP Panel does not contain any hazardous or decomposition substance according to the EU Directive 2006/1907/EEC and IARC. The fibers or filaments used as reinforcement of the mineral core are also exonerated from any classification as defined by the WHO (World Health Organization) and the EU Directive 97/69/EC.

Resistance to moisture and water

FireMaster MP Panel can also be supplied in an hydrophobic version which is water repellent in its entire thickness; the water repellent treatment withstands up to 250°C (482°F) continuously.

Non condensed moisture does not affect the product.

Features

- Best-in-class amongst other market solutions within the same classification temperature and similar chemistry, for the lowest thermal conductivity it provides in the entire temperature spectrum, up to its classification temperature
- Non combustible
- Not affected by thermal shock
- Good resistance to compression associated to its low density
- Excellent cutting properties
- Inorganic

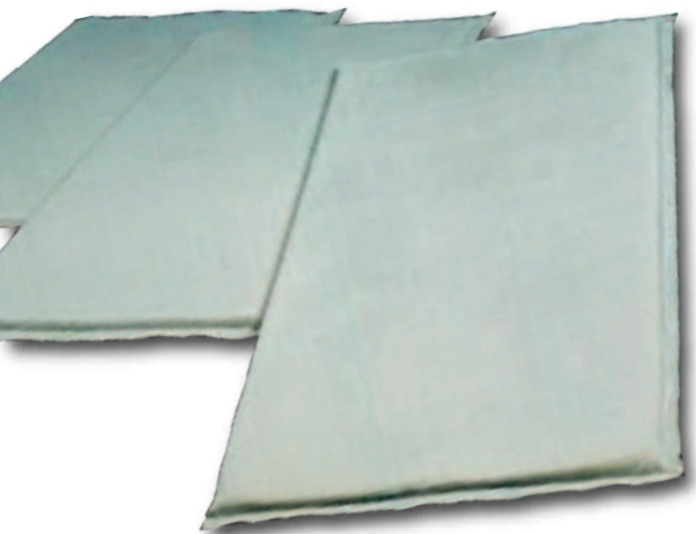
Benefits

- Dimensionally stable over time up to the maximum using temperature
- Helps to control energy efficiency and heat flow very precisely
- Easy to cut and with proven installation techniques.
- Freedom in engineering at the design stage
- Increases effective volume inner capacity or reduces encumbrance in equipment and apparels of any kind.
- Non-combustible.
- Environmentally friendly

Applications

FireMaster MP Panel is designed to meet high dimensional stability as highly effective back-up insulation and insulation core in fire protection systems even under very high temperature exposure and features the lowest shrinkage amongst those products from our range classified 1000°C (1832°F).

- Elevator and fire doors
- Highly effective insulation in fire resistant systems and enclosures.
- Safety cabinets
- Conveyer systems
- Li-ion batteries
- Fire rated enclosures in the Oil& Gas industry
- Fire rated ducting
- Exhaust systems
- Conveyer systems in the railways industry



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	Test Method	FireMaster MP Panel	FireMaster MP Panel HY
Water Resistance		Hydrophilic	Hydrophobic
Classification Temperature, °C (°F)		1000 (1832)	1000 (1832)
Density, kg/m³ (pcf), nominal		260 (16.2)	260 (16.2)
Cold Compressive strength, MPa (psi)	ASTM C 165	0.25 (36.2)	0.23 (33.3)
Linear Shrinkage, %			
Full soak, 1000°C (1832°F), 24 hours	ASTM C365	<3.0	<3.0
One side exposed soak, 1000°C (1832°F), 12 hours		<0.7	<0.7
Thermal Conductivity, W/m•K (BTU•in/hr•ft²•°F), per ASTM C177			
200°C (392°F)	ASTM C177	0.022 (0.152)	
400°C (752°F)		0.025 (0.173)	
600°C (1112°F)		0.029 (0.201)	
800°C (1472°F)		0.035 (0.242)	
Chemical Analysis, % weight basis after firing			
Silica, SiO ₂		55-75	
Silicon Carbide, SiC		25-40	
Others		3-10	
Loss of Ignition, Dry condition)		<2.5	

Shelf life

- The product has unlimited shelf life when properly stored in dry conditions; moisture does not affect the products however condensation should be avoided for the hydrophilic version.

Standard Dimensions

Board Size, mm (in)	Thickness, mm (in)
1000 x 1000 (39.3 x 39.3)	10, 12, 15, 17, 20, 25, 30, 35, 40, 45, 50 (0.4, 0.5, 0.6, 0.7, 0.8, 1, 1.18, 1.37, 1.57, 1.77, 2)
1000 x 600 (39.3 x 23.6)	
915 x 610 (36.0 x 24.0)	

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