SUPERMAT FR

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Product Description

- **Passive Fire Protection with Maximum continuous use temperature of 1800°F (982°C)**

- **UL-1709 Rating-Rapid Fire Rise Test: Up to 180 minutes of protection**

- **Constructed with a 90+% SiO2 S-Glass blanket impregnated with PTFE.**

- **Hydrophobic and breathable to mitigate the damaging effects of CUI/CUF**

- **SuperMat-FR provides passive fire protection with no curing or drying time required.**

- **Easily removed and reused for inspection.**

- **Lightweight, durable, flexible, and perfect for modular construction**

Physical Properties

|	
Color	
Density	144 to192 kg/m^3 (9 to 12 lb./ft^3)
Thickness	11 mm (+/- 10%) *
Maximum Use Temp	982°C (1800°F)
Hydrophobic	**Continuous to 348°C (660°F)**
Width	152 cm (60 in.) +/- 5%

* The needle felting manufacturing process does not allow for 100% precision on blanket thickness.

Material Performance Data

Test Method	Performance	Value
	Material Standard. for Mineral Fiber Blanket	

Insulated columns in furnace, before and during fire-test.
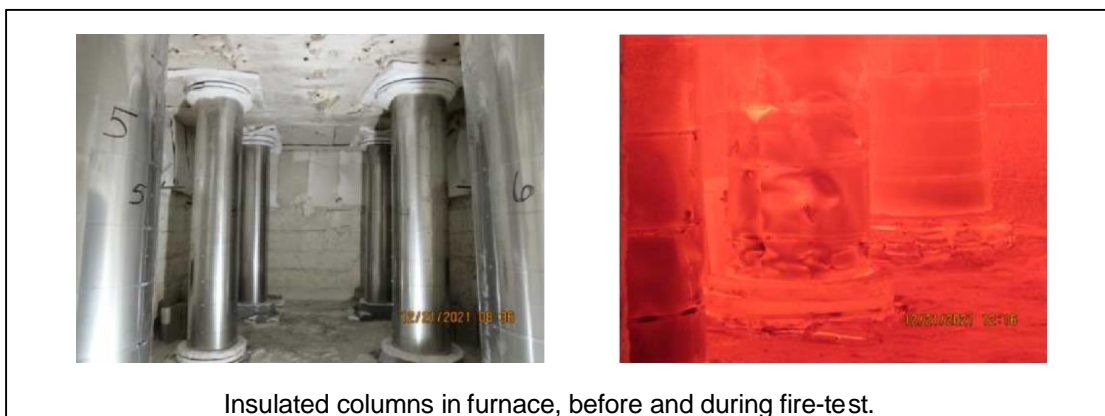
Test Method	Performance	Value
ASTM C553	Thermal Insulation for Commercial and Industrial Applications	Complies Type VII
ASTM C356	Linear Shrinkage Under Soaking Heat	5 – 7% @ 1800F
ASTM C795	Corrosiveness over Austenitic SS	Passed
STM C1101	Classifying Flexibility	Resilient Flexibility
ASTM C1104	Water Vapor Sorption	<1% (by wt)
ASTM C1338	Fungi Resistance	Passed
ASTM C1763	Water Absorption by Immersion	Procedure B, <5%
ASTM C1511	Liquid Water Retention Post-submersion, after heat aging per test method	<5%
ASTM E84	Surface Burning Characteristics	FSI=0; SDI=0

Thermal Performance per ASTM C177*

Temperature (°C)	149	315	482	649	815	982
Thermal Conductivity (mW/mK)	62.0	90.1	123	161	205	262

Temperature (°F)	300	600	900	1200	1500	1800
Thermal Conductivity (Btu· in/hr·ft^2·°F)	0.430	0.625	0.855	1.115	1.425	1.820

Third-party test reports available upon request

This information is given in good faith and Is believed to be accurate. No expressed or implied warranty of any kind, including those of merchantability or fitness for a particular purpose, is made as to the performance of an installation. Super Insulation LLC does not take any responsibility for misusing these products and recommends testing them before use.

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