

Technical Data Sheet



Super Mat



Product Description

Super Mat is a high performance, hydrophobic and flexible blanket style insulation material. It is made from E fiberglass that is impregnated with fluorocarbon resins which make it a Dust Free alternative to other silica aerogel insulations in the market. With a maximum use temperature of 650°C (1200°F) it is suitable for various applications, both indoors and outdoors. Superior thermal conductivity, ease of handling and dust free properties make Super Mat a great choice for piping and equipment applications where corrosion under insulation (CUI) is a concern and where the insulation must remain dry to ensure reliable thermal performance with long-lasting properties. Being Dust Free, Super Mat is also safe and easy to fabricate and install not requiring any additional PPE above the standard insulation requirements. This ensures more efficient and better quality installations.

Material Performance Data

Test Method	Performance	Value
ASTM C356	Linear Shrinkage Under Soaking Heat	<2% at 649°C
ASTM C795	Corrosiveness Over Austenitic SS	Passed
ASTM 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

Physical Properties

Colour:	Grey
Density:	144 to 192 kg/m ³ (9 to 12 lb/ft ³)
Thickness:	8mm, 16mm, 20mm, 25mm
Maximum Use	E-glass 649°C; S-glass 760°C;
Temp:	90%+ SiO ₂ 982°C
Hydrophobic:	Continuous to 315°C (600°F)
Width:	8mm thick: 5cm (2in) to 182cm (72in) 16, 20, & 25mm: 70cm (30in) to 182cm (72in)

Blanket Thickness (mm)	Roll Length Meter (ft)
8	38.1 (125)
16	22.8 (75)
20	18.3 (60)
25	13.7 (45)

Thermal Performance per ASTM C177

Temperature (°C)	0	100	200	300	400	500	600
Thermal Conductivity (mW/mK)	32.5	43.4	55.7	71.2	85.2	102.5	133.4
Temperature (°F)	32	212	392	572	750	932	1112
Thermal Conductivity (Btu·in/hr·ft²· °F)	0.23	0.30	0.39	0.49	0.59	0.71	0.93

CAUTION: Lewco Super Mat is not recommended for **INDOOR** application to equipment which will operate above 600°F (315°C).