

Fiberglass Needled Mat

Fiberglass needled mat is a mechanically bonded e-glass glass fiber insulation blanket of uniform density.

It is manufactured from a well-controlled assortment of long textile glass fibers to ensure uniform mechanical bonding with no additional binders.

The resulting product has excellent insulation efficiency for extended exposure at high temperatures. Also good for sound insulation and filtration applications.

Properties

- Thermal Properties
 - Completely incombustible
 - Softening temperature: 850° C
 - Refractive index 25° C: 1.55
- Mechanical Properties
 - High tensile strength: 350kg/mm²
 - Modules of elasticity: 7300kg/mm²
 - Elongation at 25° C: 4.8%
 - Flexible - conforms to irregular surfaced
- Electrical Insulation Properties
 - Dielectric constant: 10° Hz-6.43, 104Hz-6.32, 1010Hz-6.11
 - Loss tangent: 10²Hz-0.0042, 1010Hz-0.006
 - Volume resistivity: 1010Ωjcm
- Corrosion Properties - does not absorb water, rot, mildew, deteriorate or decay
- Cost - offers high strength at low cost
- Density - 100kg/m³ to 200 m³



Applications

- Muffler and exhaust insulation
- Automotive catalytic converter, flooring and front dash insulation
- Removable pads
- Ship turbines
- Marine, industrial, and process piping
- Power generating equipment
- Industrial furnaces and ovens
- Filtration
- Gaskets for air conditioning

Specifications

- Width: up to 2400mm (94")
- Thermal conductivity: 0.0300 kcal/mhr°C
- Density: 100kg/m³ to 200m³
- Heat resistance: up to 800°C
- Thickness: 3mm - 26mm (1/8" - 1")

Heat Insulation		Sound Insulation	
Temperature (C°)	Thermal Conducting Coefficient (kal/mhr°C)	Frequency (Hz)	Noise Isolation Coefficient
25	0.030	125	0.32
100	0.037	250	0.76
200	0.048	500	0.94
300	0.058	1,000	0.96
400	0.076	2,000	0.95
500	0.094	4,000	0.98
600	0.112	Needled Mat has an excellent noise isolation capacity; absorbs noise and also vibration.	
700	0.16		