



Product Datasheet

Perma-fil Needle mat

Perma-fil E'Glass Needle mat

Construction:

Saveguard Perma-fil E'glass needle mat has been specifically developed for use in vehicle exhaust silencer applications. Manufactured from 9 micron filament E'glass fibres that are specially carded to produce a high volume batt. This is then mechanically needled to bond the fibres, which results in a dimensionally stable matt or felt, possessing excellent thermal and acoustic insulating properties without any chemical binder.

The mechanical bonding system secures the individual fibres thus eliminating fibre loss via the perforated tubes. Perma-fil needle mat can be supplied pre rolled as packs on cardboard mandrels. Perma-fil packs are wrapped in Polythene sleeves for ease of handling and to reduce any irritation from the glass fibre. We also offer a complete cutting and die cutting service for more complex shapes.

Properties:

E'Glass fibres have a minimal amount of surface dressing that is required to assist in processing, this is usually organic i.e. starch or silane and will disappear at temperatures above 200° C. E'Glass Needle mats are suitable for continuous use at temperatures up to 550° C higher in exhaust applications, however tensile strength continues to reduce noticeably as temperatures increase above 400° C.

Technical:

E'Glass Fibres: are resistant to oils, solvents and most chemicals although contact with hydrofluoric acids, strong alkalis and live steam should be avoided.

are non combustible.

have a low thermal conductivity.

Colour White

Thermal conductivity: .078 w/mK 300C mean

Loss on Ignition: < 1.2%

Chemical:

E'Glass:	SiO2	54.1%	Al2O3	15.3%
	CaO	17.3%	MgO	4.7%
	Na2O	0.6%	B2O3	8.0%

Availability

Thickness	4mm	6mm	9mm	12mm	18mm	25mm
Weight per m ² 150 Kg/m ³	600	900	1350	1800	2700	3600
Weight per m ² 130 Kg/m ³	520	780	1171	1560	2340	3125
Roll Length	50	50	30	20	15	10

Density: available in a range of densities from 100 -160Kg/m³

Width: 100cm standard (others available on request)

Typical Applications:

Acoustic insulation media for exhaust silencers
Heatshields

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