



Product Data

Exhaust Acoustic Media

Acousta-fil

Introduction:

Acousta-fil is a recently developed and patented system designed for use as exhaust silencer infill. Consisting of continuous filament bulked E'Glass yarns that are tightly woven and restrained by sacrificial catch threads that melt at low temperatures. Heat from the exhaust gas releases the bulked yarns to fill the silencer cavity. The system is particularly useful for narrow annulus applications such as resonators and clam shell designs where blown in roving is impractical.

Construction:

Acousta-fil is manufactured from high performance E' Glass voluminised filament yarns of 9 to 14 micron diameter. The glass filaments are assembled and passed over high pressure air jets to produce a lofted yarn with outstanding thermal and acoustic insulation properties. The yarns are then further processed by weaving or crochet knitting to produce a flexible tape or fabric in a variety of weights and densities. It is also possible to use other filament materials such as S' Glass or silica to increase the temperature resistance offering some potential as catalyst brick support or sealing media.

Physical Properties

Euroflex Acousta-fil is suitable for use at temperatures up to 600°C in silencer applications.

E' Glass fibres have a minimal amount of surface dressing to assist in processing, this is usually organic i.e. starch or silane and will disappear at temperatures above 200°C without affecting the properties of the glass fibres.

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.

The Standard low melt synthetic binder in Acousta-fil softens above 110 C with a melt point of between 127-132C. However we are currently developing binder with melt temperatures as low as 65C for cooler applications such as Diesel Exhausts.

Chemical Properties

E' Glass	SiO ₂	54.1%
	Al ₂ O ₃	15.3%
	CaO	17.3%
	MgO	4.7%
	Na ₂ O	0.6%
	B ₂ O ₃	8.0%
Synthetic binder		<2%

Availability

Acousta-fil is normally supplied woven in widths to suit the length of the silencer can.

Widths: from 25mm to 950mm wide in increments of 5mm
Lengths: Cut to suit or formed into layflat tube