MSS10/010 – Thinsulate Acoustic Insulation TC1803

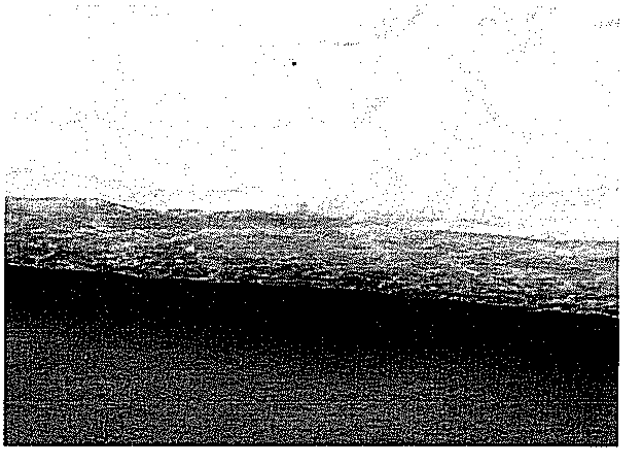
Description

Thinsulate TC Series is a High Performance Compressible Acoustic Insulation It fits a wide range of applications where varying thickness is highly desired, such as door trim panels and body side trim panels. The products are uniquely high performance and low density making them ideal for mass reduction applications.

General Construction

The web is composed of 50% polyester staple fibres, and 50% polypropylene fibres. The polypropylene fibres are extremely fine, producing the high-energy absorption characteristic with the low weight. The polyester fibres are added to strengthen the web. The scrim attached to both sides is a 100% polypropylene non-woven fabric.

Magnified image of Thinsulate™ Acoustic Insulation showing fine PP and larger PE fibres.	Thinsulate™ Acoustic Insulation material



Special Characteristics

It is conformable to accommodate the irregular spaces behind trim panels, headliners and instrument panels. Fills voids to help reduce unwanted noise from travelling throughout the vehicle. It can be processed by conventional techniques such as die-cutting and heat sealing. Attaching to trim panels is recommended, preferably using ultrasonic or heat spot welding, but adhesives (transfer tapes or hot melt) may also be used. Not recommended for applications where temperatures will be above 120°C.

General Properties

Composition	50% polypropylene, 50% polyester (Web) 100% polypropylene (Scrim)
Colour	White web with double white scrim

Physical Properties (Typical values)

Thickness 21mm (SAE J1355 @ 0,002 psi, 14 N/m²)
Surface weight 183 g/m2 (web and scrim)
Density 7.7 kg/m3
Flammability 0mm/min as per FMVSS 302 (DIN75200, ISO 3795 (1976))
Temperature stability 120°C for 2000 Hours

Acoustical Properties

1. Alpha Cabin Measurement with 1,2m² sample measuring Random Incidence Sound. Tested with scrim facing away from the microphones.
2. Dual Microphone Impedance Tube Method that measures Normal Incidence Sound. Tested with the scrim facing away from the microphones. (ASTM E1050)