

3M™ Thinsulate™ Acoustic Insulation

TF Series

Technical Data Sheet



General Description

3M™ Thinsulate™ Acoustic Insulation TF series is an acoustic absorber with excellent cavity filling properties for automotive sound insulation applications. The products are uniquely high performance and low density making them ideal for mass reduction applications. They are readily processed by conventional techniques such as die-cutting, heat sealing, and ultrasonic bonding.

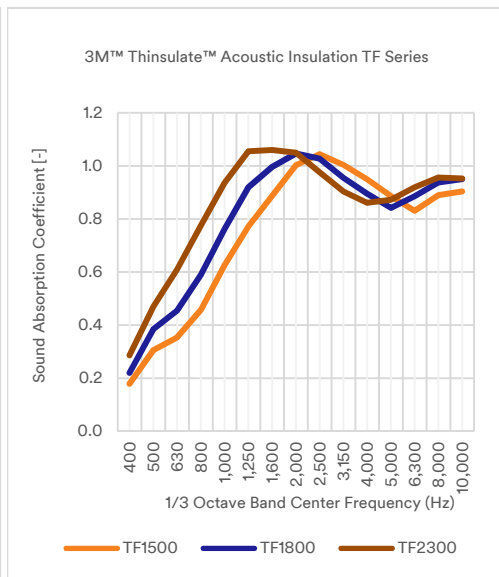
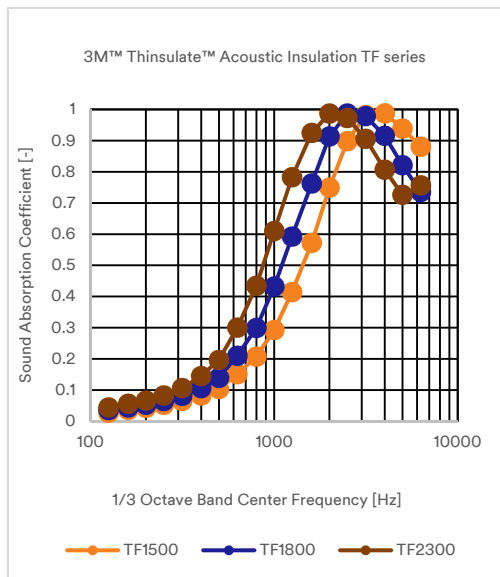
Thinsulate TF Series is compressible, providing the ability to fit a wide range of applications where varying thicknesses are highly desired, such as door trim panels and body side trim panels. The products are highly conformable and designed to accommodate the irregular spaces behind trim panels, headliners, and instrument panels. Thinsulate TF Series products are designed for optimal cavity filling — the products fill voids in pillars, behind trim panels, in headliners, or instrument panels to reduce unwanted noise.

Acoustic Properties

The following technical information and data is based upon limited 3M testing conditions and should not be used for specification purposes.

Typical Normal Incident Absorption Coefficient per ASTM E-1050

Typical Random Incident Absorption Coefficient per SAE J2883



Physical Properties

	Unit	TF1500	TF1800	TF2300
Basis Weight ^A	g/m ²	150	185	232
Thickness ^B	mm	16	21	27
Density	Kg/m ³	9.375	8.810	8.593
Thermal Properties				
R-Value ^C	m ² K/W	0.373	0.464	0.560
k-Value ^D	W/mK	0.043	0.045	0.047
FMVSS 302		Pass	Pass	Pass

^A Weight is the mass per unit area of the entire absorber composite.

^B Nominal thickness is measured using a 12 in² plate with 0.002 psi (= 14N/m²) applied to the sample per SAE J1355.

^C R-Value is the thermal resistance of the insulation measured at the corresponding thickness per ASTM C518.

^D k-value is thermal conductivity of the insulation material per ASTM C518.

Regulatory Information

Read all Health Hazard, Precautionary, and First Aid statements found in the Safety Data Sheet (SDS) and/or product label prior to handling or use. Visit https://www.3m.com/3M/en_US/company-us/SDS-search/ to obtain an SDS.

Contact Information

The information provided in this technical document is intended as a guide for this product. For more information or help in selecting a 3M product for an application, please contact your 3M technical service representative or call 1-800-328-1684.

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Automotive and Aerospace Solutions Division

3M Center
 St. Paul, MN 55144-1000
 Phone 1-800-328-1684
 Web www.3M.com/autosolutions

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