



# 3M™ Thinsulate™ High Temperature Acoustic Absorber HT Series

## Technical Data Sheet



3M™ Thinsulate™ High Temperature Acoustic Absorber HT Series are superior sound-absorbing materials specifically designed for a variety of acoustic control applications.

Thinsulate HT Series will not disintegrate at temperatures up to 150°C for 336 hours or 180°C for 48 hours, making it suitable for use in engine compartment applications, including: engine beauty covers, hoodliners, front of dash, and engine undercovers.

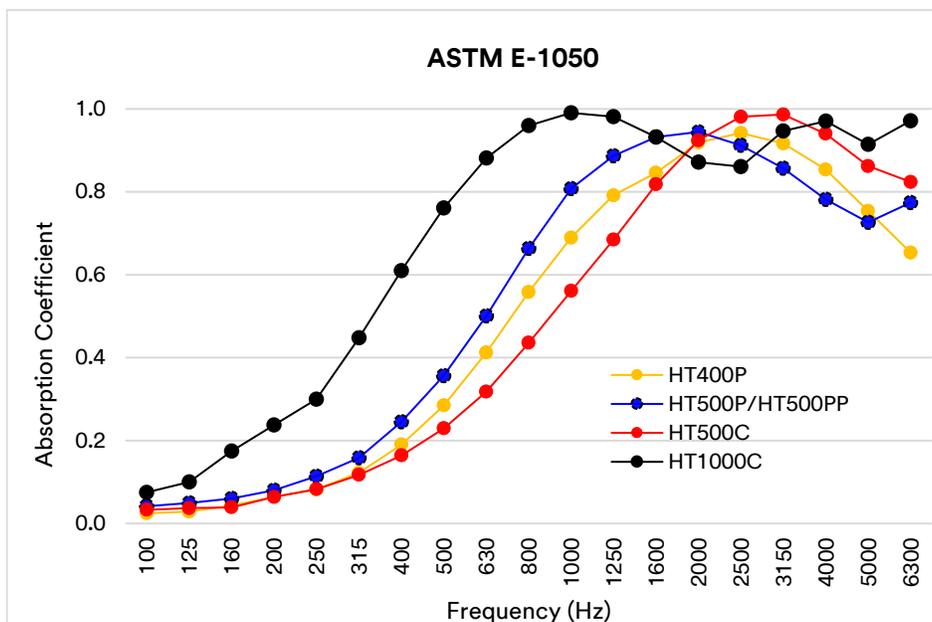
Thinsulate HT Series can be die-cut into standard flat parts with sealed edges. It provides high acoustic absorption, is lightweight, and can easily be attached to many substrates via heat staking or ultrasonic welding.

3M™ Thinsulate™ High Temperature Acoustic Absorbers HT400P, HT500P and HT500PP feature a black, high-performance, chemical resistant scrim designed to improve acoustic performance and provide resistance to typical engine compartment fluids. 3M™ Thinsulate™ High Temperature Acoustic Absorber HT500C and HT1000C feature a black scrim designed for cosmetic purposes. HT500C and HT1000C can also be molded into 3D forms.

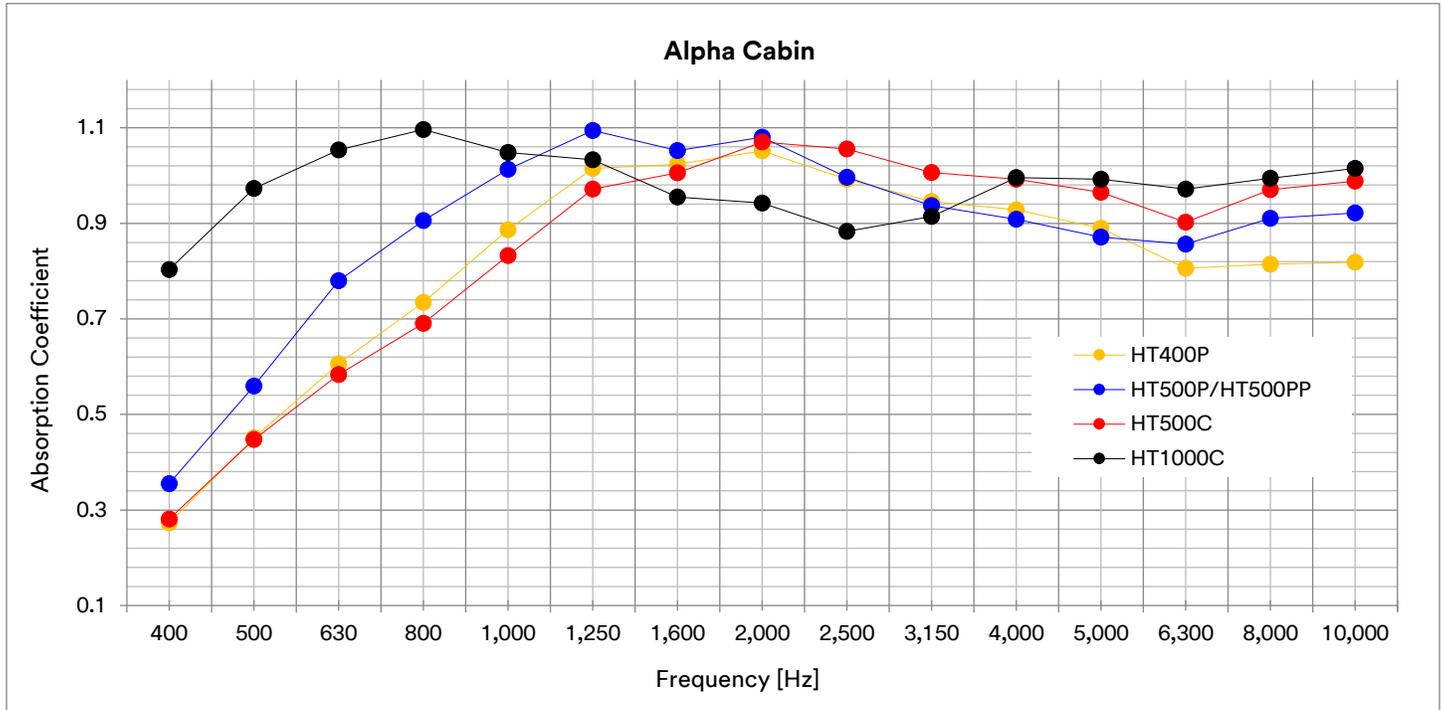
### Acoustic Properties

Typical performance of Thinsulate HT Series is shown below. The following technical information and data is based upon limited 3M testing conditions and should not be used for specification purposes.

Typical Normal Incidence Absorption Coefficient per ASTM E-1050



Typical Random Incidence Absorption Coefficient per SAE J2883



Physical Properties

	Unit	HT400P	HT500C	HT500P	HT500PP	HT1000C
<b>Weight</b> <sup>A</sup>	g/m <sup>2</sup>	467	568	567	634	1068
<b>Thickness</b> <sup>B</sup>	mm	21	23	26	26	58
<b>Density</b>	Kg/m <sup>3</sup>	22.2	24.7	21.8	24.4	18.4
<b>Thermal Properties:</b> R-Value <sup>C</sup>   k-Value <sup>D</sup>	m <sup>2</sup> K/W   W/mK	.523   .040	.585   .039	.644   .040	.644   .040	1.33   .043
<b>FMVSS 302</b>		Pass	Pass	Pass	Pass	Pass
<b>Scrim configuration</b>		Single Performance	Single Cosmetic	Single Performance	Double Performance	Single Cosmetic

<sup>A</sup> Weight is the mass per unit area of the entire absorber composite.

<sup>B</sup> Nominal thickness is measured using a 12 in<sup>2</sup> plate with 0.002 psi (= 14N/m<sup>2</sup>) applied to the sample per SAE J1355.

<sup>C</sup> R-Value is the thermal resistance of the insulation measured at the corresponding thickness per ASTM C518.

<sup>D</sup> k-value is thermal conductivity of the insulation material per ASTM C518.

Regulatory Information

Please refer to the product label and Safety Data Sheet (SDS) for health and safety information before using.

Contact Information

The information provided in this technical document is intended as a guide for these products. 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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