



# Thinsulate™ Acoustic Insulation

## TAI and SM Series (400 and 600 gram)

Technical Data Sheet

January 2012

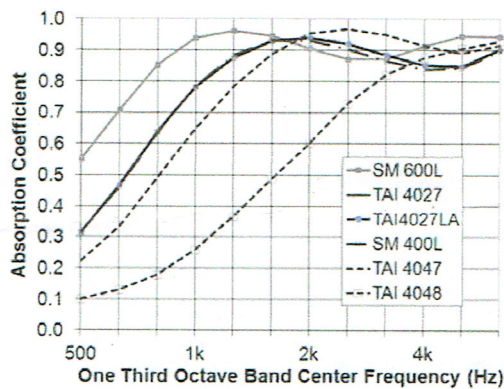
### General Description

3M™ Thinsulate™ Acoustic Insulation is a superior sound-absorbing material specifically designed for a variety of acoustic control applications. It is recommended for acoustic control in vehicle door panels, headliners, wheel wells, pillars, and instrument panels. It is available regionally with the same performance globally.

Thinsulate Acoustic Insulation is compressible, lightweight, conformable, and can easily be die-cut, heat sealed and thermally or sonically bonded to many other substrates.

### Acoustic Properties

#### Normal Incidence ASTM E-1050



### Physical Properties<sup>A</sup>

	Weight <sup>B</sup>	Thickness <sup>C</sup>	Density	Thermal Properties		FMVSS 302
	g/m <sup>2</sup> (oz/ft <sup>2</sup> )	mm (in)	kg/m <sup>3</sup> (lb/ft <sup>3</sup> )	R-Value <sup>D</sup>	R-Value/cm	(≤101.6mm/min)
TAI4027	415 (1.36)	26 (1.02)	16.0 (1.00)	3.7	1.42	Pass
TAI4027LA	431 (1.41)	26 (1.02)	16.5 (1.03)	3.7	1.42	Pass
TAI4047	400 (1.31)	23 (0.91)	17.4 (1.08)	3.4	1.48	Pass
TAI4048	420 (1.38)	13 (0.51)	32.3 (2.02)	2.0	1.54	Pass
SM 400L	442 (1.45)	26 (1.02)	17.0 (1.06)	3.8	1.46	Pass
SM 600L	642 (2.10)	42 (1.65)	15.3 (0.95)	5.2	1.25	Pass

<sup>A</sup> Data is representative of average values of stock before converting; it includes scrims and adhesives as appropriate.

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

<sup>C</sup> Nominal thickness is measured using a 12 in<sup>2</sup> plate with 0.002 psi applied to the sample.

<sup>D</sup> R-Value (ft<sup>2</sup>hr<sup>2</sup>F/BTU) is the thermal resistance of the insulation measured at the corresponding thickness.  
Thermal conductivity, k=0.039 W/m<sup>2</sup>K