3M Thinsulate™ Acoustic Insulation

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

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

<table>
<thead>
<tr>
<th>Material</th>
<th>Weight (g/m²)</th>
<th>Thickness (mm)</th>
<th>Density (kg/m³)</th>
<th>Thermal Properties</th>
<th>FMVSS 302</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(oz/ft²)</td>
<td>(in)</td>
<td>(lb/ft³)</td>
<td>R-Value (R-Value/cm)</td>
<td>(≤101.6mm/min)</td>
</tr>
<tr>
<td>TAI4027</td>
<td>415 (1.36)</td>
<td>26 (1.02)</td>
<td>16.0 (1.00)</td>
<td>3.7</td>
<td>1.42</td>
</tr>
<tr>
<td>TAI4027LA</td>
<td>431 (1.41)</td>
<td>26 (1.02)</td>
<td>16.5 (1.03)</td>
<td>3.7</td>
<td>1.42</td>
</tr>
<tr>
<td>TAI4047</td>
<td>400 (1.31)</td>
<td>23 (0.91)</td>
<td>17.4 (1.08)</td>
<td>3.4</td>
<td>1.48</td>
</tr>
<tr>
<td>TAI4048</td>
<td>420 (1.38)</td>
<td>13 (0.51)</td>
<td>32.3 (2.02)</td>
<td>2.0</td>
<td>1.54</td>
</tr>
<tr>
<td>SM 400L</td>
<td>442 (1.45)</td>
<td>26 (1.02)</td>
<td>17.0 (1.06)</td>
<td>3.8</td>
<td>1.46</td>
</tr>
<tr>
<td>SM 600L</td>
<td>642 (2.10)</td>
<td>42 (1.65)</td>
<td>15.3 (0.95)</td>
<td>5.2</td>
<td>1.25</td>
</tr>
</tbody>
</table>

**A** Data is representative of average values of stock before converting; it includes scrims and adhesives as appropriate.

**B** Weight is the mass per unit area of the entire absorber composite.

**C** Nominal thickness is measured using a 12 in² plate with 0.002 psi applied to the sample.

**D** R-Value (ft²hr°F/BTU) is the thermal resistance of the insulation measured at the corresponding thickness.

Thermal conductivity, k=0.039 W/m°K
Contact Information
For additional technical information, please contact your local 3M Acoustic Solutions Technical Service Representative. In the US, please contact 1-866-887-8438.

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