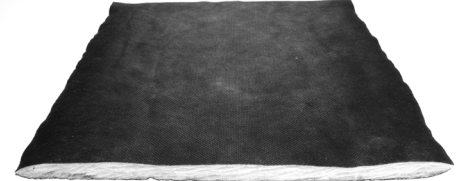
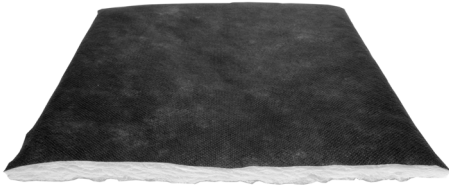




# 3M™ Thinsulate™ Acoustic Insulation Product Family Comparison

For decades, 3M has been quietly changing the way OEMs manage noise, vibration and harshness (NVH) in their vehicle designs. One of our first NVH solutions – 3M Thinsulate Acoustic Insulation – is a lightweight, low-density cavity-filling product that compresses for efficient installation and expands to completely fill interior cavities. Today, 3M Thinsulate Acoustic Insulation is available for a wide range of design and performance criteria. Each series is available in a wide range of thicknesses, basis weights and surface treatments to help you create unique shapes and profiles that meet specific requirements for your application.

| Family  | Description   | Caliper Range (mm) | Basis Weight Range (gm/m <sup>2</sup> ) | Surface Treatment   | Highlighted Applications   |
|---|---|--------------------|---|---|--|
| <b>3M™ Thinsulate™ Acoustic Insulation TF Series</b><br>   | <p>This material is high performance and low density, making it ideal for mass reduction applications. The TF Series is compressible, providing the ability to fit a wide range of applications where varying thicknesses are highly desired, especially in irregular spaces. It is readily processed by conventional techniques such as die-cutting, heat sealing, and ultrasonic bonding.</p> | 16-27              | 150-232                                 | Double White Scrim  | <ul style="list-style-type: none"> <li>• Variable cavity NVH</li> <li>• Door and body side trim panels</li> <li>• Wheel arch liners</li> <li>• Package tray</li> </ul> |
| <b>3M™ Thinsulate™ Acoustic Insulation TAI Series</b><br>  | <p>Great for tight spaces, this non-woven mat features excellent sound absorbing properties even in very thin dimensions. It is compressible and non-linting, and its light weight makes it especially suitable for vertical applications.</p>  | 8-26               | 150-437                                 | No Scrim<br>Single White Scrim<br>Double White Scrim<br>Double Embossed Scrim           | <ul style="list-style-type: none"> <li>• Door trim panels</li> <li>• Door hole seals</li> </ul>  |
| <b>3M™ Thinsulate™ Acoustic Insulation TC Series</b><br> | <p>Features high loft, low density and excellent compressibility in a wide range of thicknesses. It is ideal for optimal cavity filling in designs where mass reduction is a major consideration.</p>   | 16-41              | 155-340                                 | Double White Scrim<br>Single White/Black Scrim  | <ul style="list-style-type: none"> <li>• Variable cavity NVH</li> <li>• Headliner</li> </ul>   |
| <b>3M™ Thinsulate™ Acoustic Insulation AU Series</b><br> | <p>Features a combination of microfibers that absorbs higher frequencies, making it ideal for interior and exterior applications. Much of the AU Series features a double black scrim, which adds structural integrity and helps create more desirable aesthetics in areas where the material may be partially visible.</p>   | 10-44              | 107-617                                 | Single White Scrim<br>Single Black Scrim<br>Double Black Scrim<br>Double Embossed Scrim | <ul style="list-style-type: none"> <li>• Wheel wells</li> <li>• Trunk liners</li> </ul>  |

| Family   | Description   | Caliper Range (mm) | Basis Weight Range (gm/m <sup>2</sup> ) | Surface Treatment                           | Highlighted Applications  |
|--|---|--------------------|---|---|---|
| 3M™ Thinsulate™ Acoustic Insulation SM Series<br>                 | Very high performance in any thickness and weight. This non-woven mat delivers excellent sound absorbing properties for a full range of automotive applications. It is compressible, non-linting, lightweight, and can be easily die-cut. A black polyolefin scrim on one side protects the fibers.                                     | 13-42              | 242-642                                 | Single Black Scrim                          | <ul style="list-style-type: none"> <li>• Wheel arch liners</li> </ul>                         |
| 3M™ Thinsulate™ High Temperature Acoustic Absorbers HT Series<br> | This heat-stable fiber insulation resists temperatures of 150°C for 336 hours or 180°C for 48 hours and is excellent for engine compartment noise reduction. A durable black scrim resists fluids, helping maintain noise-reduction performance over time. This product passes FMVSS302 testing for horizontal flammability resistance. | 21-26              | 475-575                                 | Single Black Scrim                          | <ul style="list-style-type: none"> <li>• Engine compartment</li> <li>• Inner Dash</li> </ul>  |
| 3M™ Thinsulate™ Acoustic Insulation TH Series<br>                 | This material features an airflow-resistant performance scrim that delivers increased acoustic benefits at low- and mid-frequency ranges without adding thickness. This series is excellent for NVH addressing acoustic concerns from 500hz -2000hz in small spaces.  | 16                 | 260                                     | Single White Scrim<br>Double Embossed Scrim | <ul style="list-style-type: none"> <li>• Trunk liners</li> <li>• Wheel arch liners</li> </ul> |

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