TI650 & TI1K

THE FIRST SMOKE- AND ODOR-FREE THERMAL INSULATION MATERIAL FOR THREE-LAYER HEAT SHIELDS
A highly inorganic material, TI650 withstands a maximum temperature of up to 650°C with virtually no detectable smoke or odor. Competitive material smokes and burns at 400°C.

TI650 Highlights:

- Save manufacturing time and money by removing the need to preheat shields.
- Innovative design – resistant to dusting, cracking, and separation when being molded into the heat shield. Also, removes the need to fully hem shields.
- Maintains material and heat shield integrity when subjected to heat and continuous vehicle vibrations. No hot spots!

For three-layer heat shields, Interface introduces the next generation of thermal insulation materials – TI650 and TI1K. These innovative materials offer thermal protection up to 1000°C for engine applications.

When things heat up ... get the performance of TI650.
Unparalleled Performance

In laboratory testing, comparing TL650 to competitive materials, TL650 proved flame resistant up to 650°C while the competitive material ignited at 400°C. And, with its low heat conductivity, it protects sensitive components subjected to the high levels of heat emitted from today’s power dense engines. Its high material integrity eliminates the risk of hot spots.

TL1K – For the most demanding applications and protection up to 1000°C

When the heat is extreme, TL1K stands strong, delivering material toughness and formability. Unique in its ability to meet the stringent ASTM E136 flammability test standard, TL1K is ideal for three-layer heat shield applications requiring the ultimate protection – up to 1000°C.

TL1K Highlights:

• All the benefits of TL650, up to 1000°C
• Low Density
• Highly Inorganic Material
• No Detectable Smoke and Odor
• High Material Integrity, No Crumbling or Dusting
• Superior Heat Resistance
• Superior Flame Resistance
• Low Thermal Conductivity

Visit InterfaceMaterials.com for video and full test results.

For assistance in determining the optimal TL650 thermal insulation material for your heat shield application, contact our Application Engineers at ae@interfacematerials.com

Typical Properties

<table>
<thead>
<tr>
<th>Product</th>
<th>Thermal Performance</th>
<th>Material Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Temp (°C)</td>
<td>Thermal K @300°C (W/mK)</td>
</tr>
<tr>
<td>TL650</td>
<td>650</td>
<td>0.12</td>
</tr>
<tr>
<td>TL1K</td>
<td>1000</td>
<td>0.09</td>
</tr>
</tbody>
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Available Thicknesses: 0.5mm, 0.8mm, 1.0mm
Interface Performance Materials has seven manufacturing locations across the world and provides a full range of engineering services including heat shield FEA predictive modeling, thermal performance validation, thermal efficiency and surface emissivity testing, and material recommendations, as well as validation testing of parts to OEMs and fabricators. With global manufacturing excellence, advanced engineering expertise, and an innovative portfolio, Interface Performance Materials' depth of industry and application knowledge enable the company to respond quickly to rapid and continuously changing markets with custom materials and products that precisely fit performance, certainty of operation, and cost requirements.

For support, contact an Application Engineer at ae@interfacematerials.com