Description

Modern power semiconductor devices and electronic assemblies are both subject to the same trend – miniaturisation. This is leading to ever higher operating temperatures.

**WACKER’s thermally conductive silicone adhesives** have a key dual role in this process. On the one hand, they transfer the device’s heat to the heat sink or other dissipation components. On the other, they create a firm yet flexible mechanical bond that doesn’t require further fixing.

Silicone-based thermally conductive adhesives from WACKER exhibit outstanding durability. They remain virtually wear-free under permanent thermal stress, with an almost constant hardness even after thousands of operating hours at 150°C, and an elongation at break which changes minimally over the long term. The material does not become brittle. As a result, you have the assurance that the thermally conductive bond between the device and cooling element remains functional over the long term.

**WACKER’s thermally conductive silicone encapsulants and potting compounds** are optimized for bubble-free encapsulation. Despite their high filler content, they exhibit good flow properties with low viscosity. This property mix is achieved thanks to minimal thixotropic or pseudoplastic behavior, reducing the risk of air bubbles.

Features & Benefits

- Thermal management of pcb assemblies, LED assemblies, power electronics
- Efficiently dissipate heat, even for complicated shapes
Permanently withstand shocks, vibrations and temperature fluctuations due to their soft consistency
- Thermal conductivity of up to 2.3 W/m⋅K
- Reduction of manufacturing costs by acting as both thermal coupling and mechanical fixturing

Specifications

<table>
<thead>
<tr>
<th>Product</th>
<th>Characteristics</th>
<th>Thermal Conductivity (W/mk)</th>
<th>Viscosity (mPas)</th>
<th>Hardness (Shore A)</th>
<th>Colour</th>
<th>Temperature Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elastosil RT 607</td>
<td>Very hard, flame retardant silicone potting compound with rapid heat cure and excellent heat resistance. Food compliant.</td>
<td>0.2</td>
<td>10,000</td>
<td>55</td>
<td>Reddish-brown</td>
<td>210°C</td>
</tr>
</tbody>
</table>
## WACKER Thermally Conductive Silicone Adhesives & Potting Compounds

<table>
<thead>
<tr>
<th>Product</th>
<th>Characteristics</th>
<th>Thermal Conductivity (W/mk)</th>
<th>Viscosity (mPas)</th>
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<th>Colour</th>
<th>Temperature Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elastosil RT 428</td>
<td>Thermally conductive potting compound with excellent heat resistance and high hardness. Recommended for electronics encapsulation.</td>
<td>0.3</td>
<td>12,000</td>
<td>65</td>
<td>Reddish-brown</td>
<td>200°C</td>
</tr>
</tbody>
</table>
## WACKER Thermally Conductive Silicone Adhesives & Potting Compounds

<table>
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<tr>
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<th>Colour</th>
<th>Temperature Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semicosil 961 TC</td>
<td>Gap filler which cures to a soft, tacky rubber. Highly thermally conductive interface material for electronic heat sink applications.</td>
<td>2.3</td>
<td>130,000</td>
<td>25</td>
<td>Yellow</td>
<td>-50° to 180°C</td>
</tr>
</tbody>
</table>

For additional specifications, view our [selector guide](#).

### Other Information
Find out more about the technology behind WACKER Thermally Conductive Silicones by reading our technical bulletins and white papers:

- **Thermally Conductive Silicones**

### Ordering Information

Our technical team are on hand to discuss your application requirements. [Click here](#) to get in touch.

Find out more information on [how to purchase](#).

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Supplied by:

![Intertronics](#)

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