

WACKER Thermally Conductive Silicone Adhesives & Potting Compounds



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

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- Permanently withstand shocks, vibrations and temperature fluctuations due to their soft consistency
- Thermal conductivity of up to 2.3 W/mK
- Reduction of manufacturing costs by acting as both thermal coupling and mechanical fixturing

Specifications

Product	Characteristics	Thermal Conductivity (W/mk)	Viscosity (mPas)	Hardness (Shore A)	Colour	Temperature Range
Elastosil RT 607	Very hard, flame retardant silicone potting compound with rapid heat cure and excellent heat resistance. Food compliant.	0.2	10,000	55	Reddish-brown	210°C

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Product	Characteristic	Thermal Conductivity (W/mk)	Viscosity (mPas)	Hardness (Shore A)	Colour	Temperature Range
Elastosil RT 428	Thermally conductive potting compound with excellent heat resistance and high hardness. Recommended for electronics encapsulation	0.3	12,000	65	Reddish-brown	200°C

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Product	Characteristics	Thermal Conductivity (W/mk)	Viscosity (mPas)	Hardness (Shore A)	Colour	Temperature Range
Semicosil 961 TC	Gap filler which cures to a soft, tacky rubber. Highly thermally conductive interface material for electronic heat sink applications.	2.3	130,000	25	Yellow	-50° to 130°C

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

Other Information

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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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