

# WACKER Silicone Encapsulants and Potting Compounds



## Description

Silicone encapsulants from WACKER are effective for the potting and encapsulation of electronic control units, sensors, printed circuit boards, semiconductor devices or microchips. Potting or encapsulation provides efficient protection from the environment, assisting in reliable operation and the lifetime of electronic devices.

We offer one and two component WACKER products for potting and encapsulation applications. Silicone gels offer minimal thermal stress on sensitive parts and ensure that the device will work properly even when exposed to extreme temperature fluctuations or strong vibrations. For sensor applications, gels characterised by particularly low volatility and low bleed are becoming increasingly important.

## Features & Benefits

- High thermal shock resistance
- Low shrinkage
- Good adhesion including to polymer housings
- Low outgassing
- Low uncured-silicone bleed
- Formulations from Shore 00-55 to A80
- Transparent versions available

# WACKER Silicone Encapsulants and Potting Compounds



## Applications

Product	Cure Mechanism	Curing Time	Colour	Characteristics
Elastosil RT 601	Addition	24h at 23°C	Transparent	General-purpose potting compound. Manufacture of solar panels. RI=1.409. Food compliant.
Elastosil RT 604	Addition	24h at 23°C 30 min at 70°C 8 min at 100°C 5 min at 150°C	Transparent	Highly transparent. Food-compliant. Softer lower viscosity than RT 601.
Elastosil RT 607	Addition	24h at 23°C	Reddish Brown	Flame-retardant. Good heat resistance. Food-compliant.

# WACKER Silicone Encapsulants and Potting Compounds



Product	Cure Mechanism	Curing Time	Colour	Characteristics
Silgel 612	Addition	8 h at 23°C 15 min at 100°C 5 min at 150°C	Transparent	General-purpose potting compound. Manufacture of solar panels. RI=1.404. Pronounced inherent tack. Low bleed. Good damping properties.
Elastosil RT622	Addition	30 min at 150°C	Reddish Brown	All round potting compound. Suitable for technical mouldings and encapsulation of components.

# WACKER Silicone Encapsulants and Potting Compounds



Product	Cure Mechanism	Curing Time	Colour	Characteristics
Elastosil RT K	Condensation	7h at 23°C	Grey	General purpose potting compound. Excellent flowability
Elastosil RT 428	Condensation	24h at 23°C	Reddish Brown	Thermally conductive
Semicosil 961 TC	Addition	5h at 23°C 5 min at 100°C	Yellow	Thermally conductive gap filler. Shear-thinning. Easy-dispensing. Non-slump. Soft and tacky rubber.

## Specifications

# WACKER Silicone Encapsulants and Potting Compounds



Product	Mix ratio	Viscosity mPas	Hardness	Tensile Strength N/mm <sup>2</sup>	Elongation %	Temp Range	Pot Life	Volume Resistivity Ohm.cm	Dielectric Strength kV/mm	Thermal Conductivity W/m k
Elastosil RT 601	9:1	3,500	Shore A 45	6.0	100	150°C	90 mins	10 <sup>15</sup>	23	0.2
Elastosil RT 604	9:1	800	Shore A 25	1.0	100	150°C	90 mins	10 <sup>15</sup>	23	0.2
Elastosil RT 607	9:1	10,000	Shore A 55	3.5	100	210°C	80 mins	10 <sup>15</sup>	23	0.4
Silgel 612	1:1	1,000	Very soft gel			-50° to 180°C	150 mins	10 <sup>15</sup>	>23	0.2
Elastosil RT622	9:1	12,000	Shore A 27	6.5	550		60 mins			
Elastosil RT K	100:4	7,000	Shore A 45	2.0	130	-50° to 180°C	150 mins	10 <sup>14</sup>	23	0.3

# WACKER Silicone Encapsulants and Potting Compounds



Product	Mix ratio	Viscosity mPas	Hardness	Tensile Strength N/mm <sup>2</sup>	Elongation %	Temp Range	Pot Life	Volume Resistivity Ohm.cm	Dielectric Strength kV/mm	Thermal Conductivity W/m k
Elastosil RT 428		12,000	Shore A 65	6.0	90	-50° to 200°C	100 mins	>10 <sup>13</sup>	23	0.3
Semicon 961 TC	1:1	130,000	Shore A 25			-50° to 180°C	60 mins	10 <sup>13</sup>	8	2.3

Supplied by:

**intertronics**

INTERTRONICS

12a Station Field Industrial Estate, Banbury Road, Kidlington

Oxfordshire England OX5 1JD

t 01865 842842 e [info@intertronics.co.uk](mailto:info@intertronics.co.uk)

Last updated: October 2018 Version: 1.3

Statements, technical information and recommendations contained herein are based on tests we believe to be reliable but they are not to be construed in any manner as warranties expressed or implied. The user shall determine the suitability of the product for his intended use and the user assumes all risk and liability whatsoever in connection therewith.