ELASTOSIL® RT 774

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Room Temperature Curing Silicone Rubber (RTV-2)

ELASTOSIL® RT 774 is a non-slump, condensation curing RTV-2 silicone adhesive. When processed with a curing agent of the WACKER® Catalyst T 77 series, a self bonding and durable silicone rubber is formed.

Cured ELASTOSIL® RT 774 shows long-term stability against weathering, moisture and UV light. The silicone elastomer may continously be exposed to constantly changing climatic conditions, UV radiation and temperatures as high as 180 °C (356 °F) without damage.

Properties

Uncured:

- Non-slump paste
- Fast curing at room temperature
- To be cured with WACKER® Catalyst T 77 or WACKER® Catalyst T 77 PLUS (recommended mixing ratio: 10:1)

Cured:

- Medium hardness
- Primerless adhesion to many substrates (glass, ceramics, metals, plastics and powder coatings)
- recommended service temperature range: -50 °C to +180 °C
- Suitable for FIPG applications

Special features

- Condensation-curing
- Electrically insulating
- General purpose
- Non-slump
- Primerless adhesion to most substrates
- Resistant to moisture
- Self-adhesive
- Thixotropic
- Two-component
- UV & weathering-resistant

Technical data

Properties Uncured

Property	Condition	Value	Method
Colour	-	white	-
Density	23 °C	1.32 g/cm^3	ISO 1183-1 A
Viscosity, dynamic	25 °C | 0.5 1/S	1250000 mPa·s	DIN EN ISO 3219
Viscosity, dynamic	25 °C | 25 1/S	90000 mPa·s	DIN EN ISO 3219

These figures are only intended as a guide and should not be used in preparing specifications.

Catalyzed

Mixed with WACKER Catalyst T 77 (mixing ratio in parts by weight)

Property	Condition	Value	Method
Tack-free time (10:1)	23 °C	approx. 60 min	-
Tack-free time (12:1)	23 °C	approx. 90 min	-
Tack-free time (8:1)	23 °C	approx. 45 min	-
Pot Life (10:1)	23 °C	15 - 20 min	-
Pot Life (12:1)	23 °C	25 - 30 min	-
Pot Life (8:1)	23 °C	10 - 15 min	-
Viscosity of the mixture (10: 1)	25 °C | 0.5 1/s	approx. 1000000 mPa·s	DIN EN ISO 3219
Viscosity of the mixture (10: 1)	25 °C | 25 1/s	approx. 75000 mPa·s	DIN EN ISO 3219

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Catalyzed

Mixed with WACKER Catalyst T 77 PLUS (mixing ratio in parts by weight)

Property	Condition	Value	Method
Tack-free time (10:1)	23 °C	approx. 30 min	-
Tack-free time (12:1)	23 °C	approx. 45 min	-
Tack-free time (8:1)	23 °C	approx. 25 min	-
Pot Life (10:1)	23 °C	5 - 10 min	-
Pot Life (12:1)	23 °C	10 - 15 min	-
Pot Life (8:1)	23 °C	4 - 6 min	-
Viscosity of the mixture (10: 1)	25 °C | 0.5 1/s	approx. 1000000 mPa·s	DIN EN ISO 3219
Viscosity of the mixture (10: 1)	25 °C | 25 1/s	approx. 75000 mPa·s	DIN EN ISO 3219

These figures are only intended as a guide and should not be used in preparing specifications.

Properties Cured

Cured with WACKER Catalyst T 77 or WACKER Catalyst T 77 PLUS, mixing ratio 10:1 (by weight). Curing Conditions: 14 days at 23 °C and 50 % rel. humidity, 2 mm sheet, no post-curing.

Property	Condition	Value	Method
Elongation at break	-	300 %	DIN 53504 S1 / ISO 37
Tensile strength	-	2.2 N/mm^2	DIN 53504 S1 / ISO 37
Hardness Shore A	-	35	DIN 53 505 / ISO 868
Density in water	23 °C	1.35 g/cm^3	DIN EN ISO 1183-1
Color	-	anthracite	-
Tear resistance	-	7.0 N/mm^2	ASTM D 624 B

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Applications

- Sealants
- Luminaires
- Small Appliances

- Small Appliances
- Household Applications
- Household Applications

Application details

- General purpose FIPG grade
- Typical fields of application: household appliances, automotive, mechanical engineering, electrical industry.

Processing

Mixing and curing:
ELASTOSIL® RT 774 is processed in combination with a curing agent, such as WACKER® Catalyst T 77 or WACKER® Catalyst T 77 PLUS. Prior to application the two compounds should be thoroughly mixed, either manually or by automatic metering lines equipped with static or dynamic mixing devices. The recommended mixing ratio is 10:1 by weight.

Potlife and curing speed can be modified within limits by adjusting the ratio of base compound (ELASTOSIL® RT 774) to curing agent (WACKER® Catalyst T 77 or WACKER® Catalyst T 77 PLUS). Varying the mixing ratio between 8:1 and 12:1 usually has a small effect on the properties of the cured rubber. However, if the mixing ratio differs substantially from the recommended scope, preliminary tests should be carried out to check the cured material's suitability. General information about pot life and resulting curing times are given in the respective tables "Catalyzed".

Moreover curing speed can be slightly accelerated by raising the temperature. Heating, however, must not exceed 60 °C before curing is completed.

After completion of the vulcanization process the product may continuously be exposed to constantly changing climatic conditions, UV radiation and high temperature without damage. Cured ELASTOSIL® RT 774 usually shows good primerless adhesion to many substrates, e.g. glass, ceramics, metals, plastics and powder coatings.

Detailed information about processing and modifying curing speed is given in our brochure “ROOM TEMPERATURE VULCANIZING (RTV) SILICONES - MATERIAL AND PROCESSING GUIDELINES”. We recommend running preliminary tests to optimize conditions for the particular application.

Removal:
If removal of the silicone from machines or dispensing equipment is necessary, white spirit or similar nonpolar solvents are recommended. However, cleaning ideally should take place before the silicone is fully vulcanized. Cured silicone needs to be removed mechanically, if necessary in combination with a swelling agent (solvent).

Packaging and storage

Storage

Store in a dry and cool place.

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

While curing ELASTOSIL® RT 774 releases a total of approx. 1.5 - 2 wt.% alcohol. These vapors should not be inhaled for long periods or in high concentrations. Hence ventilation of the work place is recommended.

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site http://www.wacker.com.

QR Code ELASTOSIL® RT 774

For technical, quality or product safety questions, please contact:

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