WACKER® CATALYST T 81

Room Temperature Curing Silicone Rubber (RTV-2)

is a standard curing agent for polycondensation curing base compounds of the product series ELASTOSIL® RT or ELASTOSIL® M. Using Catalyst T 81 with those, a durable and self bonding silicone rubber is formed after curing. The shear-thinning paste provides excellent adhesion properties and improves the thermal resistance.

Properties

- Non-slump paste
- To be processed with polycondensation curing base compounds
- standard mixing ratio: 10:1 b.w
- Curing between 5°C and 40°C
- Curing speed tunable by mixing ratio adjustment
- Provides excellent adhesion to many substrates (glass, ceramics, wood, metals, plastics and powder coatings)

Specific features

- Condensation-curing
- Self-adhesive
- Shear thinning
- Thixotropic

Technical data

General Characteristics

Property	Condition	Value	Method
Color	-	black	-
Density	23 °C	1.21 g/cm^3	DIN EN ISO 1183-1
Viscosity, dynamic	25 °C | 25 1/s	15000 mPa·s	ISO 3219

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

Processing

WACKER® CATALYST T 81 is a universal crosslinker component used as standard curing agent for polycondensation curing base compounds of the ELASTOSIL® product series. The shear-thinning paste provides excellent adhesion properties and improves oil resistance.

The crosslinking reaction of condensation curing RTV-2 silicones is relatively robust in regard to curing inhibition. Amine containing materials, urethanes, organic compounds with sulfur-containing groups, organometallic compounds, plasticizers, lubricants, oils and grease usually do not impair the curing process itself. Nevertheless, for optimum adhesion results all substrates used should be clean, dry and free from grease, waxes, dust or other surface contaminations.

Mixing and curing:
To ensure uniform curing both components have to be thoroughly mixed, either manually or by automatic metering lines equipped with static or dynamic mixing devices. The standard mixing ratio is 10:1 by weight. As WACKER® CATALYST T 81 can be used for a broad variety of polycondensation base components with may have different specific densities, a general valid mixing ratio cannot be defined. Instead, the processing properties may be adjusted by variation of the WACKER® CATALYST T 81 content.
Potlife and curing speed can be modified within limits by adjusting the ratio of base compound to curing agent. 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 is given in the table "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. WACKER® CATALYST T 81 usually provides good primerless adhesion to many substrates

Removal:
If removal of silicone rubber 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 rubber needs to be removed mechanically, if necessary in combination with a swelling agent (solvent).

Detailed information about processing RTV-2 silicones 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.

Packaging and storage

Packaging

EURO-Cardridges 310ml (0,3 kg)
Steel-Pails 21,5 l (20 kg)

Storage

Storage and transport between 5°C und 30°C
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 curingWACKER® CATALYST T 81 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 WACKER® CATALYST T 81

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

Wacker Chemie AG, Gisela-Stein-Strasse 1, 81671 Munich, Germany
productinformation@wacker.com, www.wacker.com