WACKER SilGel 613

RTV-2 SILICONE GEL

Product description

WACKER SilGel 613 is a pourable, addition-curing, RTV-2 silicone rubber that vulcanizes at room temperature to a very soft silicone gel.

Special features

- two-part, 10 : 1 mixing ratio
- very low viscosity
- rapid curing at room temperature with ELASTOSIL® CAT PT-F
- very low hardness (silicone gel)
- inherent tack
- excellent mechanical damping properties

Product data

Typical general characteristics	Inspection Method	Value
Product data (uncured)		
Color		Clear
Viscosity, dynamic at 25 °C	DIN EN ISO 3219	150 mPa.s
Density at 23 °C	ISO 2811	0,97 g/cm³
Product data (catalyzed)		
Suitable catalyst		ELASTOSIL® CAT PT ELASTOSIL® CAT PT-F
Mix ratio (by weight or volume)		10 : 1
Viscosity of mix	ISO 2319	200
Pot life at 25°C ELASTOSIL® CAT PT	ISO 2555	> 60 min
Pot life at 25°C ELASTOSIL® CAT PT-F	ISO 2555	5 min
Product data (cured)		
Color		Clear
Density at 23 °C	ISO 2781	0,97 g/cm³
Penetration (9.38 g hollow cone)	DIN ISO 2137	70 mm/10

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

Application

- encapsulation of electronic components for the automotive and power electronics industries
- production of damping elements

Processing

Surface preparation
All surfaces must be clean and free of contaminants that will inhibit the cure of WACKER SilGel 613. Examples of inhibiting contaminants are sulfur containing materials, plasticizers, urethanes, amine containing materials and organometallic compounds – especially organotin compounds. If a substrate's ability to inhibit cure is unknown, a small scale test should be run to determine compatibility.

Mixing
Even traces of ELASTOSIL® CAT PT (-F) may cause gelling WACKER SilGel 613. Therefore tools (spatula, stirrers, etc.) used for handling of ELASTOSIL ® CAT PT (-F) or the catalyzed compound must not come into contact with WACKER SilGel 613.

WACKER SilGel 613 and ELASTOSIL® CAT PT(-F) should be thoroughly mixed at a 10 : 1 ratio by weight or volume.

To eliminate any air introduced during dispensing or

trapped under components or devices a vacuum encapsulation is recommended.

Curing
Curing time of addition-curing silicone rubber is highly dependent on temperature, size and heat sink properties of the component being potted.

The reactivity can be adjusted within wide limits by adding Catalyst EP or Inhibitor PT 88 to suit the processing requirements of the particular application. Catalyst EP increases the reactivity, i. e., pot life and curing time are reduced.
Inhibitor PT 88 is a pot life extender and prolongs pot life and curing time.
Further information is given in our leaflet “Catalyst EP/Inhibitor PT88”.

Pigmentation
WACKER SilGel 613 can be pigmented by adding 1 - 4 % of an ELASTOSIL® FL pigment paste.

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions are given in our leaflet "Wacker RTV-2 Silicone Rubber-Processing".

Temperature	Curing time
ELASTOSIL® CAT PT	
23 °C	4 h
100 °C	10 min
150 °C	5 min
ELASTOSIL® CAT PT-F	
23 °C	20 min
50 °C	5 min
100 °C	1 min

Storage

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

According to the latest findings WACKER SilGel 613 being an addition-curing silicone rubber contains neither toxic nor aggressive substances which might require special handling precautions. General industrial hygiene regulations should be observed.

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.

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

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