ELASTOSIL® RT 646

RTV-2 Silicone Rubber

Characteristics

ELASTOSIL® RT 646 is a castable, addition-curing, two-component silicone rubber which vulcanizes at room temperature.

Special characteristics

- High hardness and good mechanical properties
- Good chemical resistance
- Good resistance to casting resins
- Excellent reversion resistance
- Fast and non-shrink vulcanization at room temperature
- Vulcanization can be accelerated considerably by heat

Application

- Encapsulation of electrical components
- Coatings
- Mould making

Product data (uncured)

Property	Test method	Unit	Value	
Component			**A**	**B**
Color			Beige	Transparent
Viscosity at 23 °C	ISO 3219	[mPa s]	110,000	2,000
Density		[g/cm³]	1.30	1.01

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

Product data (catalyzed A+B)

Property	Test method	Unit	Value
Mixing ratio		A : B	10 : 1
Viscosity of mix	ISO 3219	[mPa s]	70,000
Pot life at 23 °C (up to 100,000 mPa s)		[min]	80
Platinum-catalyst in component			A
Linear shrinkage (curing at room temperature)		[%]	< 0.1

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

Product data (cured)

Property	Test method	Unit	Value
Color			Beige
Density at 23 °C	DIN EN ISO 1183-1 / ISO 2781	[g/cm³]	1.28
Hardness Shore A	DIN 53 505 / ISO 868		53
Tensile strength	DIN 53 504 S 1 / ISO 37	[N/mm²]	5
Elongation at break	DIN 53 504 S 1 / ISO 37	[%]	280
Tear strength	ASTM D 624 B	[N/mm]	12

Cured for 60 min at 150 °C in a circulating air oven.

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

Processing

Important!
The platinum catalyst is contained in component A.

Caution
Only components A and B with the **same lot number** may be processed together!

To ensure homogeneity of the material, the components must be stirred thoroughly before they are removed or processed in their containers, in order to uniformly disperse any fillers that might have settled during storage.

Temperature	Curing time, thickness 1 cm
23 °C	24 h
50 °C	60 min
100 °C	10 min
150 °C	5 min

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".

Storage

ELASTOSIL® RT 646 should be stored between 5 °C and 23 °C in the tightly closed original container. The 'Best use before end' date of each batch appears 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 information

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from Wacker subsidiaries.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001
The Business Unit Elastomers of the Division Silicones is ISO/TS 16949 certified.

WACKER

and ELASTOSIL® are registered trademarks of Wacker Chemie AG.

Version 4.10 from 13-03-06 replaces Version 4.00 from 20-05-05

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

Wacker Chemie AG
WACKER-SILICONES
Hanns-Seidel-Platz 4
D-81737 Munich, Germany

www.wacker.com
info.elastosil-rt@wacker.com