

ELASTOSIL® RT 745 A/B

PRIMERLESS SILICONE ENCAPSULANT

Product description

ELASTOSIL® RT 745 A/B is a pourable, thermally curable, addition-curing, two-part silicone rubber.

Special features

- two-part, 1 : 1 mixing ratio
- low viscosity
- low hardness
- low risk of inhibition
- rapid heat cure
- primerless adhesion

Application

- encapsulation of electronic components
- conformal coating of printed circuit boards and hybrid components

Processing

Caution:

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

Surface preparation:

All surfaces must be clean and free of contaminants that will inhibit the cure of ELASTOSIL® RT 745 A/B. 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:

Component A of ELASTOSIL® RT 745 contains the platinum catalyst, component B the crosslinker. Even traces of the platinum catalyst may cause gelling of the component containing the crosslinker. Therefore tools (spatula, stirrers, etc.) used for handling the platinumcontaining component or the catalyzed compound must not come into contact with this component.

The two components should be thoroughly mixed at a 1 : 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".

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, thickness 1 cm
80 °C	60 min
120 °C	10 min
150 °C	5 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, the addition-curing silicone rubber ELASTOSIL® RT 745 A/B contains neither toxic or corrosive substances which would require special handling precautions. General 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>.

Product data

Typical general characteristics	Inspection Method	Value
Product data (uncured)		
Component A		
Colour		brownish
Viscosity at 23 °C	ISO 3219	1000 mPa s
Density at 23 °C		0,97 g/cm³
Component B		
Colour		translucent
Viscosity at 23 °C	ISO 3219	1000 mPa s
Density at 23 °C		0,97 g/cm³
Product data (catalyzed A + B)		
Platinum-catalyst in component		A
Mix ratio (pbw)	A : B	1 : 1
Viscosity of mix at 23 °C	ISO 3219	1000 mPa s
Pot life at 23 °C, up to 100000 mPa s		≥ 4 h
Product data (cured)		
Colour		translucent, brownish
Density at 23 °C in water	DIN 53479 A	0,97 g/cm³
Hardness Shore A	ISO 868	15
Modulus at 100 % elongation	ISO 37	0,2 N/mm²
Volume resistivity	IEC 60093	10 ¹⁶ Ω*cm
Permittivity	IEC 60250	2,5

Cured for 30 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.

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

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

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