

ELASTOSIL® SOLAR 2200 A/B

RTV-2 SILICONE RUBBER

Product description

ELASTOSIL® SOLAR 2200 A/B is a pourable, addition-curing, two-component silicone rubber with good primerless adhesion to selected substrates.

Special features

- low viscosity
- fast cure at elevated temperature (120 °C)
- primerless adhesion to glass, aluminium, PET, PEN and primed ETFE films
- good transparency

Application

- lamination of solar modules

Processing

Caution!

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

Surface preparation

All surfaces must be clean and free of contaminants that will inhibit the cure of ELASTOSIL® SOLAR 2200 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® SOLAR 2200 A/B 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 platinum-containing 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 dissolved or introduced during

dispensing it is favourable to individually deaerate both components prior to use; applying a vacuum of 25 - 50 mbar for 10 - 15 min is recommended.

Curing

The curing time of addition-curing silicone rubber is highly dependent on temperature, size and heat sink properties of the components being laminated.

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".

After completion of the vulcanization process the product may be continuously exposed to constantly changing climatic conditions, UV radiation and temperatures as high as 180 °C (356 °F) without damage.

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".

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 rubber is fully vulcanized. Cured silicone rubber can be removed mechanically, preferably in combination with a swelling agent (solvent).

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

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		
Color		opaque
Viscosity at 23 °C	DIN 53019	22000 mPa s
Density at 23 °C		1,00 g/cm ³
Component B		
Color		opaque
Viscosity at 23 °C	DIN 53019	40000 mPa s
Density at 23 °C		1,00 g/cm ³
Product data (catalyzed A + B)		
Mix ratio	A : B	1 : 1
Viscosity of mix at 23 °C	DIN 53019	30000 mPa s
Pot life at 23 °C		2 days
Curing time at 120 °C		120 s
Product data (cured)		
Color		slightly opaque
Density at 23 °C in water	DIN EN ISO 1183-1	1,00 g/cm ³
Hardness Shore A	DIN 53505 / ISO 868	30
Tensile strength	DIN 53504 S1 / ISO 37	3,0 N/mm ²
Elongation at break	DIN 53504 S1 / ISO 37	300 %
Tear strength	ASTM D 624 B	4,5 N/mm

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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