

ELASTOSIL® Solar 1101

RTV-1 SILICONE RUBBER / ADHESIVE

Product description

ELASTOSIL® Solar 1101 is a non-slump, one-part silicone rubber that cures at room temperature under the influence of atmospheric moisture.

Special features

- neutral curing system (alkoxy)
- primerless adhesion on many substrates
- long-term stability against weathering, moisture and UV radiation
- excellent reversion stability
- electrically insulating

Application

General-purpose adhesive for the PV industry, e.g. for frame sealing or bonding of junction boxes.

Processing

ELASTOSIL® Solar 1101 is a one-part, room temperature vulcanizing sealant that upon exposure to moisture yields a flexible silicone rubber of medium hardness. During curing a small amount of alcohol is released.

The curing process starts at all places where the paste comes into contact with atmospheric humidity, and it proceeds from the outer to the inner parts of the silicone. The total curing rate depends on the atmospheric conditions in the surrounding. The higher rel. humidity, the faster the material will cure. The temperature has only limited influence on the curing rate.

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.

ELASTOSIL® Solar 1101 shows good primerless adhesion to many substrates, in particular to those which are common for the PV industry (glass, anodized aluminium, Tedlar® films, PVF, PVDF etc.). We recommend running preliminary tests to optimize conditions for the particular application, general instructions are given in our leaflet "ELASTOSIL® RTV-1 Silicone Rubber".

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 by mechanical means, preferably in combination with a swelling agent (solvent), which will help to remove sealant residues.

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.

Additional information

ELASTOSIL® Solar 1101 releases during cure a total 3 % alcohol. These vapors should not be inhaled for long periods or in high concentrations. Hence good ventilation of the works place is necessary.

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)		
Color		translucent
Density at 25 °C	ISO 2811	1,03 g/cm ³
Extrusion rate 3 mm nozzle, pressure 0.21 N/mm ² , 23 °C		60 ml/min
Skin forming time at 23 °C, 50 % RH		15 min
Curing time, 23 °C, 50 % RH		12 h/mm
Product data (cured)		
Color		translucent
Density	ISO 2781	1,05 g/cm ³ at 23 °C
Hardness Shore A	ISO 868	30
Elongation at break	ISO 37	400 %
Tensile strength	ISO 37	2,0 N/mm ²

Curing conditions: 2 mm, 14 days storage at 23 °C and 50 % RH.

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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