

ELASTOSIL[®] Solar 2120 UV

UV curing Silicone Encapsulant

Characteristics

ELASTOSIL[®] Solar 2120 UV is a pourable, addition-curing, 1-part silicone rubber that cures extremely fast after exposure to UV light to yield a soft silicone elastomer.

Special characteristics

- One-part, ready-to-use
- Low viscosity
- Extremely fast curing at room temperature (after UV-activation)
- Low hardness (Shore 00)

Application

Encapsulation of electrical and electronic components for the PV industry.

Processing

Surface preparation

All surfaces must be clean and free of contaminants that will inhibit the cure of ELASTOSIL[®] Solar 2120 UV. 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.

Dispensing

To eliminate any air introduced during dispensing or trapped under components or devices a vacuum encapsulation is recommended.

Curing

Curing time of ELASTOSIL[®] Solar 2120 UV is highly dependent on UV-activation. Significant differences in curing time are obtained for curing different layer thicknesses and for using different substrate materials. Typical values are given below.

UV-activation (140 mW/cm ²)	Curing time at 25 °C (2 mm)
5 s	2 min
10 s	1 min
20 s	cured after 45 s

We recommend running preliminary UV curing tests to optimize conditions for the particular application.

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.

Product data (uncured)

Property	Test method	Unit	Value
Color			Transparent
Viscosity at 25 °C	ISO 3219	[mPa s]	1,000
Density at 23 °C		[g/cm ³]	0.97

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			Transparent
Density at 23 °C	ISO 2781	[g/cm ³]	0.97
Hardness Shore 00	ASTM D 2240		40

Curing conditions: 10 s activation with UV-lamp (140 mW/cm²), 30 min at 150°C.

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

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 non-polar 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

ELASTOSIL® SOLAR 2120 UV should be stored between 5 °C and 30 °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

According to the latest findings, addition curing silicone rubber ELASTOSIL® SOLAR 2120 UV contains neither toxic nor corrosive substances which might require special handling precautions. General hygiene regulations should be observed.

Detailed safety information is contained in each Material Safety Data Sheet, which can be obtained from our sales offices.

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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