

# ELASTOSIL® R *plus* 573/50, 70

Electrically conductive HCR silicone rubber – addition curing for extrusion

## Characteristics

Electrically conductive two component silicone rubber grades for extrusion of profiles and cable components in hot air.

## Special characteristics

- Good mechanical and electrical properties
- High conductivity
- Low volume resistivity
- Good heat resistance
- Good rheological properties
- Combustion products of low toxicity and corrosivity and low smoke density
- Flame retardant

## Application

Electrically conductive profiles, EMI-gaskets, ignition cables (core), band electrodes.

## Properties

The materials are black due to their conductivity.

## Processing

Extrusion. Vulcanization by infrared (IR), hot air (HAV) or cure vapor (CV).

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

Comprehensive processing instructions are given in our leaflet „Processing ELASTOSIL® R Solid Silicone Rubber“.

ELASTOSIL® R *plus* 573 is crosslinked after mixing A and B component in a ratio of 1 : 1 at T > 180 °C.

The pot life of the A, B mix is several hours at room temperature. The exact timing will depend on the individual conditions and it should be part of the referenced tests.

If the extrudates show blisters, one has to vary the extrusion speed.

In order to achieve the optimum electrical properties, it is necessary to post cure for at least 4 h at 200 °C after molding.

Contact with solvents or oils (also with silicone fluids) should be avoided, as this results in changes of the electrical conductivity.

Property	Test method	Unit	ELASTOSIL® <i>plus</i> 573	
Hardness Shore A	DIN 53 505		<b>50</b>	<b>70</b>
Appearance			Black	Black
Specific gravity	DIN EN ISO 1183-1 A	[g/cm <sup>3</sup> ]	1.12	1.16
Tensile strength	DIN 53 504 S 1	[N/mm <sup>2</sup> ]	5.5	6.2
Elongation at break	DIN 53 504 S 1	[%]	390	260
Tear strength, die B	ASTM D 624 B	[N/mm]	11	13
Volume resistivity	DIN IEC 93	[Ω cm]	5.2	1.6
Compression set	DIN ISO 815-B (22 h / 175 °C)	[%]	29	34

All data are obtained after press curing the mix of ELASTOSIL® R *plus* 573/50,70.

These values are intended as a guide and should not be used in preparing specifications

## Storage

ELASTOSIL® R *plus* 573 should be stored between 5 °C and 25 °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 present state of our knowledge, ELASTOSIL® R *plus* 573 contain neither toxic nor corrosive substances which would require special handling precautions. Therefore only the general industrial hygiene regulations apply.

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

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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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