

ELASTOSIL[®] R 510/70 S



High Consistency Silicone Rubber (HCR/HTV)

ELASTOSIL[®] R 510/70 S is a peroxide crosslinking HCR silicone for the manufacture of silicone-insulated cables and wires.

Properties

This product can be used within a temperature range of - 55 °C to + 225 °C. The addition of heat stabilizers at service temperatures of more than 180 °C is recommended. Further information to improve the heat stability by use of specific ELASTOSIL[®] AUX Heat Stabilizers can be obtained from the Technical Information Sheet "ELASTOSIL[®] AUX Stabilizers H" or from the latest brochures.

Specific features

- General purpose
- Heat resistant

Technical data

Properties Cured

Cure conditions:

1.8 % ELASTOSIL® AUX Crosslinker E (50% paste of bis-(2,4-dichlorobenzoyl)-peroxide in silicone fluid); 10 min / 135 °C in press

Property	Condition	Value	Method
Appearance	-	translucent	-
Hardness Shore A	-	70	DIN ISO 48-4
Density	-	1.21 g/cm ³	DIN EN ISO 1183-1 A
Tensile strength	-	9.4 N/mm ²	ISO 37 type 1
Elongation at break	-	340 %	ISO 37 type 1
Tear strength	-	21 N/mm	ASTM D 624 B
Compression Set	22 h 175 °C	48 %	DIN ISO 815-1 type B method A
Volume resistivity	-	10 ¹⁵ Ohmcm	IEC 62631-3-1
Permittivity	50 Hz	2.9	IEC 62631-2-1
Dissipation factor	50 Hz	50 x 10 ⁻⁴ tan δ	IEC 62631-2-1
Dielectric strength	-	24 kV/mm	IEC 60243-1

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

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

ELASTOSIL® silicone polymers and fillers

Applications

- Cables for Household Appliances
- Ignition & Battery Cables
- Measurement & Control Cables

Application details

ELASTOSIL® R 510/70 S is crosslinked with 1.8 % crosslinker E [Bis(2.4-dichlorobenzoyl)peroxide, 50 %] at T > 135 °C or with 1.2 % Curing Agent C6 [2.5 Bis(t-butylperoxy)-2.5 dimethylhexane, 45 %] at T > 165 °C.

Processing

The raw rubber requires the addition of peroxides for vulcanization at elevated temperatures. A homogeneous incorporation is a must to maintain best processing behavior. Pot life is depending on the used peroxide and storage condition. Please consider the technical data sheet of the corresponding curing agent.

For detailed information refer to our latest brochure "SOLID AND LIQUID SILICONE RUBBER - MATERIAL AND PROCESSING GUIDELINES".

Packaging and storage

Packaging

This product is available in 20 kg and 540 kg cardboard packaging.

Special delivery forms are possible but depend on several technical and commercial aspects. Please contact your local sales manager in such cases.

Storage

Please store the cardboard boxes in a dry and cool place. Already opened boxes should be closed again to avoid any contamination. 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>.

QR Code ELASTOSIL® R 510/70 S



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

Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany
productinformation@wacker.com, www.wacker.com

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