ELASTOSIL® R plus 5305/70

ELASTOSIL®

High Consistency Silicone Rubber (HCR/HTV)

ELASTOSIL® R plus 5305/70 is a platinum-catalyzed addition-curing, two-part silicone rubber for manufacturing extruded articles. Cured articles show an excellent transparency and very good mechanical properties.

Properties

This product can be used within a temperature range of - 55 °C to + 210 °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

- Addition Curing
- Two-component

Technical data

Properties Cured

Cure conditions: 15 min / 165 °C in press, post-cured 4 h / 200 °C

Property	Condition	Value	Method
Appearance	-	transparent	-
Hardness Shore A	-	70	DIN ISO 48-4
Density	-	1.18 g/cm^3	DIN EN ISO 1183-1 A
Tensile strength	-	9.2 N/mm^2	ISO 37 type 1
Elongation at break	-	590 %	ISO 37 type 1
Tear strength	-	42 N/mm	ASTM D 624 B
Compression Set[(1)]	22 h | 175 °C	10 %	DIN ISO 815-1 type B method A
Rebound resilience	-	57 %	ISO 4662

[1]post-cured 4 h / 200 °C

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

Applications

- E-Mobility Cables for EV/HEV
- Ignition & Battery Cables

Processing

The raw rubber requires the addition of a platinum catalyst for vulcanization at elevated temperatures. A homogeneous incorporation is a must, but please avoid temperatures >30°C along the incorporation process in order to maintain best processing behavior. Pot life is depending on the used catalyst and storage condition.

ELASTOSIL® R plus 5305/70 and ELASTOSIL® AUX PT 1 are homogeneously mixed in a ratio of 100 : 1.5. Care must be taken to keep the compound cool during mixing. Crosslinking begins when ELASTOSIL® AUX PT 1 has been added. The rate and degree of crosslinking depend on the storage time and temperature. At 23 °C the mixture has a pot life of about 24 h. This can be extended by storing the catalyzed mixture at a lower temperature.

For detailed information please refer to the latest edition of our 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

Once opened, cardboard boxes should always be resealed after use to prevent the platinum catalyst from being poisoned by amines, sulphur or phosphorus compounds. 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 plus 5305/70

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

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