ELASTOSIL® R plus 4081/55 MH

ELASTOSIL®

High Consistency Silicone Rubber (HCR/HTV)

ELASTOSIL® R plus 4081/55 MH is an addition-cure, one-component high consistency silicone rubber for the manufacturing of molded articles. Cured articles are of a white color and show good thermal conductivity in combination with excellent electrical insulation and good mechanical properties.

Properties

ELASTOSIL® R plus 4081/55 MH is a fast-curing silicone rubber exhibiting good thermal conductivity and good mechanical properties. Thanks to addition cure, the vulcanization reaction is significantly faster compared to peroxide curing materials. No peroxide decomposition products are formed during vulcanization.
Due to the high filler loading the cured rubber exhibit a white color.
Post-curing above 150 °C leads to a deterioration of the compression set.

Specific features

- Addition Curing
- One-component
- Thermally conductive

Technical data

Properties Uncured

Property	Condition	Value	Method
Thermal conductivity	-	0.80 W/m.K	ASTM D 5470-17

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

Properties Cured

Cure conditions: 15 min / 165 °C in press, post-cured 4 h / 150 °C

Property	Condition	Value	Method
Appearance	-	white	-
Hardness Shore A	-	55	DIN ISO 48-4
Density	-	1.9 g/cm^3	DIN EN ISO 1183-1 A
Tensile strength	-	3.2 N/mm^2	ISO 37 type 1
Elongation at break	-	230 %	ISO 37 type 1
Tear strength	-	10 N/mm	ASTM D 624 B
Compression Set	22 h | 150 °C	10 %	DIN ISO 815-1 type B method A
Volume resistivity	-	5 x 10^{14} Ohmcm	IEC 62631-3-1
Permittivity	50 Hz	4.9 εr	IEC 62631-2-1
Dissipation factor	50 Hz	0,015 x tan δ	IEC 62631-2-1
Dielectric strength (1-mm-sheet)	-	26 kV/mm	IEC 60243-1
Rebound resilience	-	49 %	ISO 4662

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Processing

ELASTOSIL® R plus 4081/55 MH is particularly suited for processing on a silicone rubber injection molding machine. CAUTION! Due to the high filler loading the ELASTOSIL® R plus 4081/55 MH shows a significant degree of abrasion CAUTION! Danger of deactivation! The platinum catalyst can be deactivated by e.g. amines or sulfur compounds. 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

Please store the cardboard boxes in a dry and cool place. 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 4081/55 MH

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

Wacker Chemie AG, Gisela-Stein-Strasse 1, 81671 Munich, Germany
productinformation@wacker.com, www.wacker.com