ELASTOSIL® R plus 4000/40 MH

ELASTOSIL®

High Consistency Silicone Rubber (HCR)

ELASTOSIL® R plus 4000/40 MH is an addition-cure, two-component high consistency silicone rubber for the manufacture of molded articles. Cured articles are of high transparency and exhibit an excellent tear resistance.

Properties

ELASTOSIL® R plus 4000/40 MH is a fast curing silicone rubber exhibiting high elongation values and excellent tear resistance. Thanks to addition cure, the vulcanization reaction is significantly faster compared to peroxide curing materials. No peroxide decomposition products are formed during vulcanization.
In order to obtain an intermediate hardness ELASTOSIL® R plus 4000/40 MH can be blended in any ratio with other grades of the ELASTOSIL® R plus 4000 series. In that case, the platinum catalyst batch ELASTOSIL® AUX Batch PT 2 should be added as the last component.
At service temperatures above approx. 180 °C the addition of heat stabilizers is recommended. Further information about an improvement of the heat stability by use of specific ELASTOSIL® AUX Heat Stabilizers can be obtained from the Technical Information Sheet "ELASTOSIL® AUX Stabilizers H" or the latest edition of our brochures.

Specific features

- Addition Curing
- Food-contact
- High tear-resistant
- Two-component

Technical data

Properties Cured

Cure conditions: 1.5 % ELASTOSIL® AUX Batch PT 2, 15 min / 165 °C in press, post-cured 4 h / 200 °C

Property	Condition	Value	Method
Density	-	1.12 g/cm^3	DIN EN ISO 1183-1 A
Hardness Shore A	-	40	ISO 7619-1
Tensile strength	-	9.3 N/mm^2	ISO 37 type 1
Elongation at break	-	860 %	ISO 37 type 1
Compression Set[(1)]	22 h | 175 °C	35 %	DIN ISO 815-1 type B method A
Appearance	-	transparent	-
Rebound resilience	-	47 %	ISO 4662
Tear strength	-	46 N/mm	ASTM D 624 B

[1]post-cured 4 h / 200 °C

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.

Applications

- Baby Care
- Dairy Applications
- Molded Parts

Application details

ELASTOSIL® R plus 4000/40 MH is particularly suited for the production of molded articles exhibiting high transparency and excellent tear resistance, e.g. diving masks.
Properly cured and post-cured vulcanizates of ELASTOSIL® R plus 4000/40 MH can be used for food contact applications and are suitable for use under the Recommendation "XV. Silicones" of the BfR and FDA 21 CFR §177.2600 "Rubber Articles Intended for Repeated Use" considering any given limitations on extractable and volatile substances.

Processing

ELASTOSIL® R plus 4000 series may not be cured with peroxides but only with the platinum catalyst batch ELASTOSIL® AUX Batch PT 2. ELASTOSIL® R plus 4000/40 and ELASTOSIL® AUX Batch PT 2 are mixed homogeneously on a roll mill in a ratio of 100:1.5. A higher catalyst dosage results in a faster curing but a reduced pot life. Care must be taken to keep the compound cool during mixing. A homogeneous incorporation is a must, but the temperature of the rubber should not exceed 30 °C, otherwise there is a risk of scorch.
The cross-linking reaction starts as soon as ELASTOSIL® AUX Batch PT 2 has been added. The rate and degree of crosslinking is dependent on storage time and temperature. At 23 °C the pot life exceeds 5 days. This can be extended by storing the catalyzed mixture at 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

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 4000/40 MH

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

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