

ELASTOSIL[®] R 401/10 OH



High Consistency Silicone Rubber (HCR)

Peroxide cured vulcanizates made from this compound exhibit a unique combination of characteristics. They are noted for their good flexibility, high transparency, and mechanical properties. The compounds are easily pigmented with ELASTOSIL[®] Color Paste PT and have good processing characteristics.

ELASTOSIL[®] R 401/10 OH is a low duro silicone rubber base for extrusion and molding applications as well as for manufacturing of silicone sponge articles in combination with peroxide crosslinkers.

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

- Regulation: Food-contact
- Specific Features: Food-contact
- Specific Features: General purpose

Technical data

Properties Cured

Cure conditions (post-cured 4 h / 200 °C):

0.5 % ELASTOSIL® AUX Crosslinker E (50% paste of bis-(2,4-dichlorobenzoyl)-peroxide in silicone fluid); 10 min / 135°C in press

0.6 % ELASTOSIL® AUX Crosslinker C1 (Dicumylperoxide); 15 min /165 °C in press

Property	Condition	Curing Agent E	Curing Agent C1	Method
Density	-	1.07 g/cm ³	1.07 g/cm ³	DIN EN ISO 1183-1 A
Hardness Shore A	-	13	13	DIN ISO 48-4
Tensile strength	-	6.00 N/mm ²	6.00 N/mm ²	ISO 37 type 1
Elongation at break	-	1200 %	1200 %	ISO 37 type 1
Compression Set ⁽¹⁾	22 h 175 °C	28 %	41 %	DIN ISO 815-1 type B method A
Appearance	-	transparent	transparent	-
Rebound resilience	-	37 %	37 %	ISO 4662

¹post-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

- Dairy Applications
- Exhaust-Pipe Suspensions
- General Automotive Parts
- Molded Parts
- Profiles & Tubings
- Vibration Damping

Application details

ELASTOSIL® R 401/10 OH is suitable for all applications where low hardness, high elongation, good damping etc. are required in combination with typical silicone properties such as very good heat resistance, good release, soft grip etc.

Postcured parts can be used for food contact applications and are suitable for use under the Recommendation "XV. Silicones" of the BfR and FDA § 177.2600 under observance of any given limitations on extractable and volatile substances.

Processing

The raw rubber requires the addition of peroxides 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 peroxide and storage condition.

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

ELASTOSIL® R 401/10 OH can be used in combination with known peroxides. Dosage of 0.5 % of crosslinker E for extrusion and 0.6 % of C1 (dicumylperoxide) for molding purposes will lead to lowest durometer values still maintaining good processing behaviour. Higher dosage of the above mentioned peroxides will lead to harder vulcanizates, however, the hardness will predictably always be below 20 ShA. Processing in extrusion as well as in molding can be carried out as usual. ELASTOSIL® R 401/10 OH is only slightly slower in crosslinking speed than harder rubbers due to its lower vinyl density.

To our best knowledge ELASTOSIL® R 401/10 OH is fully compatible with other ELASTOSIL® R rubbers and can be blended with them in any ratio.

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 401/10 OH



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

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