ELASTOSIL® R 861/70 S

ELASTOSIL®

High Consistency Silicone Rubber (HCR)

These translucent compounds are highly flexible and are noted for their low compression set and improved media and coolant resistance.

Properties

Specific features

- Regulation: Food-contact
- Resistance: Coolant resistant
- Resistance: Steam resistant
- Specific Features: Coolant resistant
- Specific Features: Food-contact
- Specific Features: Steam resistant
- Specific Features: Ultra-low compression set

Technical data

Properties Cured

Property	Condition	Value	Method
Density	-	1.16 g/cm^3	DIN EN ISO 1183-1 A
Appearance	-	translucent	-

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

Properties Cured

Cure conditions (post-cured 4 h / 200 °C):
1.5 % ELASTOSIL® AUX Crosslinker E (50% paste of bis-(2,4-dichlorobenzoyl)-peroxide in silicone fluid); 10 min / 135°C in press
0.7 % ELASTOSIL® AUX Crosslinker C1 (Dicumylperoxide); 15 min /165 °C in press

Property	Condition	Curing Agent E	Curing Agent C1	Method
Hardness Shore A	-	73	73	DIN ISO 48-4
Tensile strength	-	8.8 N/mm^2	8.6 N/mm^2	ISO 37 type 1
Elongation at break	-	320 %	290 %	ISO 37 type 1
Compression Set[(1)]	22 h | 175 °C	31 %	8 %	DIN ISO 815-1 type B method A
Compression Set[(2)]	70 h | 175 °C	50 %	20 %	DIN ISO 815-1 type B method A
Rebound resilience	-	47 %	50 %	ISO 4662

[1]post-cured 4 h / 200 °C
[2]post-cured 4 h / 200 °C

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Coolant resistance

After immersion in coolant
1000 h / 125 °C in autoclave
Cure conditions: 0.7 % ELASTOSIL® AUX Crosslinker C1 (Dicumylperoxide), 15 min / 165 °C in press, post-cured 4 h / 200 °C

Property	Glysantin® G48 / distilled water 50:50	Method
Hardness Shore A	80	DIN ISO 48-4
Tensile strength	6.3 N/mm²	ISO 37
Elongation at break	230 %	ISO 37
Compression Set[(1)]	89 %	DIN ISO 815-1 type B method B
Volume change	-1 %	-

[1]post-cured 4 h / 200 °C

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Oil resistance

Cure conditions: 0.7 % ELASTOSIL® AUX Crosslinker C1 (Dicumylperoxide), 15 min / 165 °C in press, post-cured 4 h / 200 °C

Property	70 h / 150 °C IRM 901	70 h / 150 °C IRM 903	Method
Hardness Shore A	73	54	DIN ISO 48-4
Tensile strength	7.0 N/mm²	8.5 N/mm²	ISO 37
Elongation at break	260 %	240 %	ISO 37
Volume change	5 %	43 %	-

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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
- General Automotive Parts
- Household Applications
- Molded Parts
- Profiles & Tubings

Application details

This compound can be used in the manufacture of molded parts, but also particularly extrusion, for producing profiles, e. g. for windows and facades.

Provided appropriate processing, articles produced from ELASTOSIL® R 861/70 S can be used for food contact applications in accordance with the Recommendation "XV. Silicones" of the BfR and FDA 21 CFR § 177.2600 under observance of any given limitations on extractable and volatile substances. Furthermore, the product contains low levels of residual toluene which has to be completely removed from the final food contact article.

Processing

To obtain optimum compression set values it is advisable to post-cure for 4 hours at 200°C. We recommend to use 1.5 % Curing Agent E for the manufacture of extrudates, and 0.7 % C1 or 1.2 % C6 for molded parts.

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. 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 861/70 S

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

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