ELASTOSIL® R 861/70

HIGH CONSISTENCY SILICONE RUBBER

Product description

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

Application

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

Provided appropriate processing, articles produced from ELASTOSIL® R 861/70 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.

Storage

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.

Product data

Typical general characteristics	Inspection Method	Value
Appearance		translucent
Density at 23 °C	ISO 1183-1 A	approx. 1,2 g/cm³
Curing agent E		
Hardness Shore A	DIN 53505 A	69
Tensile strength	DIN 53504 S 1	8,90 N/mm²
Elongation at break	DIN 53504 S 1	300 %
Tear strength	ASTM 624 B	18 N/mm
Rebound resilience	DIN 53512	47 %
Compression set	DIN ISO 815-B (22 h / 175 °C)	28 %
Compression set	DIN ISO 815-B (70 h / 175 °C)	30 %
Curing agent C1		
Hardness Shore A	DIN 53505 A	74
Tensile strength	DIN 53504 S 1	8,70 N/mm²
Elongation at break	DIN 53504 S 1	295 %
Tear strength	ASTM 624 B	18 N/mm
Rebound resilience	DIN 53512	52 %
Compression set	DIN ISO 815-B (22 h / 175 °C)	11 %
Compression set	DIN ISO 815-B (70 h / 175 °C)	20 %
Original values for oil storage		
Hardness Shore A		73
Tensile strength		10,20 N/mm²
Elongation at break		391 %
Oil resistance: 150°C (IRM 901, Crosslinker C6 p.c.) (Period of immersion, 3 days)		
Hardness Shore A		70
Delta Hardness Shore A		-3
Tensile strength		7,50 N/mm²
Delta Tensile strength		-27 %
Elongation at break		247 %
Delta Elongation at break		-37 %
Volume change		6 %
Oil resistance: 150°C (IRM 903, Crosslinker C6, p.c.) (Period of immersion, 3 days)		
Hardness Shore A		49
Delta Hardness Shore A		-24
Tensile strength		8,20 N/mm²
Delta Tensile strength		-20 %
Elongation at break		238 %
Delta Elongation at break		-39 %
Volume change		44 %
Original value for cooling agent immersion		
Hardness Shore A		73

Typical general characteristics	Inspection Method	Value
Tensile strength		9,60 N/mm^2
Elongation at break		294 %

Cooling agent immersion: After immersion in BASF Glysantin G 48 / dest. Water 1:1 / autoclave Crosslinker C1, p.c. (Storage at 125°C, 42 days)	
Hardness Shore A	75
Delta Hardness Shore A	2
Tensile strength	7,00 N/mm^2
Delta Tensile strength	-27 %
Elongation at break	252 %
Delta Elongation at break	-14 %
Volume change	-0,4 %
Compression set	83 %

Curing agent information:

EL AUX Crosslinker C1	Dicumyl peroxide (98 %)	Dosage: 0.7 %
EL AUX Crosslinker C6	45 % paste of 2,5-bis-(t-butylperoxy)-2,5-dimethyl hexane in silicone rubber	Dosage: 1.2 %
EL AUX Crosslinker E	50 % paste of bis-(2,4-dichlorbenzoyl)-peroxide in silicone fluid	Dosage: 1.5 %

Test specimen: S3A

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

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

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