ELASTOSIL® LR 3170/40 A/B

ELASTOSIL®

Liquid Silicone Rubber (LSR)

Self-adhesive liquid silicone rubbers of the ELASTOSIL® LR 3170 series are paste-like, low inflammable two-component compounds with extremely short curing times. Their vulcanizates are noted for excellent mechanical and electrical properties.

Properties

ELASTOSIL® LR 3170 series are primerless, selfbonding grades that adhere to various plastic substrates (e. g. PA, PET, PBT) and metals, but not in the mold. The bonding is improved by a subsequent heat treatment process (e. g. one hour at 100 °C) or by a longer storing at room temperature. Because of the individual surface properties each substrate must be tested before mass production. For further information on tested material combinations please refer to the corresponding adhesion tables which are available upon request from the responsible sales manager.
The excellent flame retardancy is confirmed by achieved UL94-V0 listings at 3mm thickness. Good heat resistance as well as short curing times and non abrasive behaviour in LIM process are further benefits of this material.

Specific features

- Flame retardant
- Reduced volatile content
- Self-adhesive

Technical data

Properties Uncured

Property	Condition	Value	Method
Viscosity, dynamic (1 s^{-1})	-	1600000 mPa·s	DIN EN ISO 3219
Viscosity, dynamic (10 s^{-1})	-	400000 mPa·s	DIN EN ISO 3219

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

Properties Cured

Cure conditions: 5 min / 165 °C in press

Property	Condition	Value	Method
Appearance	-	dark-gray / black	-
Tear strength	-	23 N/mm	ASTM D 624 B
Hardness Shore A	-	45	DIN ISO 48-4
Density	-	1.12 g/cm^3	DIN EN ISO 1183-1 A
Tensile strength	-	9.8 N/mm^2	ISO 37 type 1
Elongation at break	-	590 %	ISO 37 type 1
Compression Set	22 h | 125 °C	29 %	DIN ISO 815-1 type B method A
Volume resistivity	-	5 x 10^{15} Ohmcm	IEC 62631-3-1
Dielectric strength (1-mm-sheet)	-	29 kV/mm	IEC 60243-1
LOI	-	35 %	EN ISO 4589-2 / ASTM D2863

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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

- General Automotive Parts
- Molded Parts
- Molded Seals (LSR)

Application details

ELASTOSIL® LR 3170 series are particularly suitable for the economical production of large series of overmolded parts (thermoplastic/elastomer), even in a comolding process (shuttle mold) under standard conditions, without any special treatment of the mold surface.

Parts made from ELASTOSIL® LR 3170 can generally be used for technical applications without post-curing, but do not comply with regulations concerning use in the pharmaceutical and food industry.

Processing

The A and B components are delivered ready to use in 20 kg pail and 200 kg drum kits. With adequate metering equipment, they can be pumped directly from the original containers into the injection molding machine and mixed by a static mixer. The mixing ratio is 1 : 1.
Note: Start-up of new molds should be supported by use of ELASTOSIL® AUX Mold Release Agent 32.
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 pail and 200 kg drum kits.

Storage

Once opened, containers 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® LR 3170/40 A/B

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

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