ELASTOSIL® LR 3004/40 A/B

ELASTOSIL®

Liquid Silicone Rubber (LSR)

Liquid silicone rubbers of the ELASTOSIL® LR 3004 series are paste-like, easily-pigmentable two-component compounds with very short curing times. Their vulcanizates are noted for their high transparency and excellent mechanical and electrical properties.

Properties

Narrow Shore hardness range from 38 to 44 Shore A (41 ± 3 Shore A). 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® Color Pastes FL can be obtained from the Technical Information Sheet "ELASTOSIL® Color Pastes FL".

Specific features

- Fast curing
- Food-contact
- Reduced volatile content

Technical data

Properties Uncured

Property	Condition	Value	Method
Viscosity, dynamic (1 s^{-1})	-	910000 mPa·s	DIN EN ISO 3219
Viscosity, dynamic (10 s^{-1})	-	370000 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, post-cured 4 h / 200 °C

Property	Condition	Value	Method
Appearance	-	transparent	-
Hardness Shore A	-	40	DIN ISO 7619-1
Density	-	1.13 g/cm^3	DIN EN ISO 1183-1 A
Tensile strength	-	10.0 N/mm^2	ISO 37 type 1
Elongation at break	-	610 %	ISO 37 type 1
Compression Set[(1)]	22 h | 175 °C	10 %	DIN ISO 815-1 type B method A
Volume resistivity	-	5 x 10^{15} Ohmcm	DIN IEC 93
Dielectric constant	50 Hz	2.8	DIN VDE 0303
Dissipation factor	50 Hz	2 x 10^{-4} tan δ	DIN VDE 0303
Dielectric strength (1-mm-sheet)	-	23 kV/mm	DIN IEC 243-2
Rebound resilience	-	57 %	ISO 4662
Tear strength	-	35 N/mm	ASTM 624 B

[1]post-cured 6 h / 200 °C

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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

- Damping
- Food Technology

- Hybrid & Electric Drives
- Alternative Drives
- Baby Care
- Molded Parts
- Sanitary
- Automotive & Transport
- Gaskets & Membranes
- Food Processing
- Automotive Parts
- Molded Seals (LSR)
- Vibration Dampers

Application details

These grades are particularly suitable for the economical production of large series of injection-moulded articles. Parts made from ELASTOSIL® LR 3004 can be used for technical applications. These articles are also suitable for use in conjunction with foodstuffs.

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 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. At room temperature, mixtures of A and B components have a pot life of at least one day.

For detailed information refer to our brochure "SOLID AND LIQUID SILICONE RUBBER - MATERIAL AND PROCESSING GUIDELINES".

The vulcanization (t90 value) is 20 to 50% shorter than of products in the ELASTOSIL® LR 3003 series. This consequently leads to a decrease in cycle times and thus to cost savings, depending on the injection-moulded articles.

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 3004/40 A/B

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

Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany
info@wacker.com, www.wacker.com

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