

# ELASTOSIL<sup>®</sup> LR 3005/50 A/B



## Liquid Silicone Rubber (LSR)

Liquid silicone rubber of the ELASTOSIL<sup>®</sup> LR 3005 series are a paste-like, easily-pigmentable twocomponent compounds with extremely short curing times. The vulcanizates are noted for their excellent mechanical and electrical properties. Due to the excellent compression set, there is no need to post-cure technical parts.

## Properties

Narrow Shore hardness range from 47 to 53 Shore A ( $50 \pm 3$  Shore A). This product can be used within a temperature range of  $-55\text{ °C}$  to  $+210\text{ °C}$ . The addition of heat stabilizers at service temperatures of more than  $180\text{ °C}$  is recommended. Further information to improve the heat stability by use of specific ELASTOSIL<sup>®</sup> Color Pastes FL can be obtained from the Technical Information Sheet "ELASTOSIL<sup>®</sup> Color Pastes FL".

## Specific features

- Fast curing
- Low compression set without post-cure
- Reduced volatile content

## Technical data

### Properties Uncured

Property	Condition	Value	Method
Viscosity, dynamic (1 s <sup>-1</sup> )	-	790000 mPa-s	DIN EN ISO 3219
Viscosity, dynamic (10 s <sup>-1</sup> )	-	320000 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	-	transparent	-
Hardness Shore A	-	50	DIN ISO 48-4
Density	-	1.12 g/cm <sup>3</sup>	DIN EN ISO 1183-1 A
Tensile strength	-	8.7 N/mm <sup>2</sup>	ISO 37 type 1
Elongation at break	-	500 %	ISO 37 type 1
Tear strength	-	24 N/mm	ASTM D 624 B
Compression Set	22 h   175 °C	15 %	DIN ISO 815-1 type B method A
Volume resistivity	-	3 x 10 <sup>16</sup> Ohmcm	IEC 62631-3-1
Permittivity	50 Hz	2.9	IEC 62631-2-1
Dissipation factor	50 Hz	11 x 10 <sup>-4</sup> tan δ	IEC 62631-2-1
Dielectric strength (1-mm-sheet)	-	26 kV/mm	IEC 60243-1
Rebound resilience	-	60 %	ISO 4662

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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

- Battery Coolant Connectors
- Connector Seals
- General Automotive Parts

- Molded Parts
- Molded Seals (Automotive)
- Vibration Damping

## Application details

These grades are particularly suitable for the economical production of large series of injection-molded articles. Parts made from ELASTOSIL® LR 3005 are particularly suitable for the economical production of large series of injection moulded articles. They can generally be used for technical applications without post-curing, but do not comply with regulations 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. At room temperature, mixtures of A and B components have a pot life of at least one days.

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 3005/50 A/B



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

**Wacker Chemie AG**, Gisela-Stein-Strasse 1, 81671 Munich, Germany  
productinformation@wacker.com, www.wacker.com

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