# ELASTOSIL® LR 5040/30 A/B

ELASTOSIL®

## Liquid Silicone Rubber (LSR)

ELASTOSIL® LR 5040/30 A/B is a paste-like, easily pigmentable two-component liquid silicone rubber with very low volatiles content and excellent mechanical properties with no required postcure. Articles made from ELASTOSIL® LR 5040/30 A/B exhibit high transparency, excellent electrical properties, and mechanical properties engineered for high tear resistance according to DIN ISO 34-1 A (trousers) and ASTM D 624 B (crescent) without post-curing. The ability to meet regulatory requirements for specific food and baby care applications without need for post-curing offers key advantages in cost-savings and productivity.

## Properties

Narrow Shore hardness range from 28 to 34 Shore A (31 ± 3 Shore A) without post-curing.

### Specific features

- Regulation: Food-contact
- Regulation: Low volatile
- Specific Features: Fast curing
- Specific Features: Food-contact
- Specific Features: High tear-resistant
- Specific Features: Low volatile

# Technical data

## Properties Uncured

| Property | Condition | Value | Method |
|---|---|---|---|
| Viscosity, dynamic (1 $s^{-1}$) | - | 900000 mPa·s | DIN EN ISO 3219 |
| Viscosity, dynamic (10 $s^{-1}$) | - | 440000 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 | - | slightly bluish | - |
| Tear strength | - | 32 N/mm | ASTM D 624 B |
| Tear strength | - | 12 N/mm | DIN ISO 34-1 A |
| Hardness Shore A | - | 30 | DIN ISO 48-4 |
| Volatile content[(1)] | - | ≤ 0.4 % | BfR Recommendation XV. Silicones |
| Density | - | 1.12 g/$cm^3$ | DIN EN ISO 1183-1 A |
| Tensile strength | - | 9.2 N/$mm^2$ | ISO 37 type 1 |
| Elongation at break | - | 760 % | ISO 37 type 1 |
| Rebound resilience | - | 44 % | ISO 4662 |

[1]Determined for press-cured sheets having 2 mm thickness. For thinner articles the volatile content can be higher.

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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

- Baby Care
- Dairy Applications
- Medical Equipment
- Molded Parts
- Sanitary

## Application details

ELASTOSIL® LR 5040/30 A/B is designed for the automated, high volume production of injection moulded articles.
Properly cured vulcanizates of ELASTOSIL® LR 5040/30 A/B can be used for food contact applications and are suitable for use under the Recommendation "XV. Silicones" of the BfR and FDA 21 CFR §177.2600 "Rubber Articles Intended for Repeated Use" considering any given limitations on extractable and volatile substances.
Properly cured materials meet the limit of 0.5 % for volatile substances in accordance with BfR “XV. Silicones”, DIN EN 1400:2014-07 and DIN EN 14350-2:2004-11, respectively. Consequently, post-curing may not be necessary, however, as the results may vary with the processing conditions and the geometry of the finished article, it is the responsibility of the person placing the article on the market to verify compliance with all relevant requirements and regulations. Since the measured volatile content increases with decreasing thickness of a part, in particular very thin-walled articles have to be carefully checked for compliance with any relevant limitations for volatile matter.
The following studies were performed on vulcanizates of ELASTOSIL® LR 5040/30 A/B according to ISO 10993:
- Hemocombatibility (Hemolysis and Thrombogenicity) (ISO 10993-4)
- Cytotoxicity (ISO 10993-5)
- Sensitation LLNA (ISO 10993-10)
- Pyrogenicity (ISO 10993-11)

The following studies were performed on vulcanizates of ELASTOSIL® LR 5040/30 A/B according to USP class VI:
- Acute systemic toxicity
- Intracutaneous toxicity
- Implantation test

No adverse effects have been detected at any of the studies performed.

## 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".

## 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. For detailed information about storage conditions please refer to the latest edition of our brochure "SOLID AND LIQUID SILICONE RUBBER - MATERIAL AND PROCESSING GUIDELINES".
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 5040/30 A/B

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

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