

ELASTOSIL[®] LR 3003/80 US A/B

Liquid Silicone Rubber (LSR)

Liquid silicone rubbers of the ELASTOSIL[®] LR 3003/80 US A/B series are paste-like, easily pigmentable two-component compounds. They are noted for their high transparency, excellent mechanical and electrical properties and their ability to be molded into intricately-shaped, precision parts. This series is used for health care applications, including short-term implants. Very brief molding cycles for intricately-shaped and flash-free parts are possible.

Properties

- ELASTOSIL[®] LR 3003/80 US A/B has been tested according to the recommendations of the US Pharmacopoeia and meets the requirements of Class VI.
- ELASTOSIL[®] LR 3003/80 US A/B contains only those ingredients¹ which are suitable for food contact.
- Excellent mechanical properties
- Excellent clarity
- Excellent molding qualities
- Excellent pot life after mixing parts A & B

Technical data

Properties Cured

Properties obtained after mixing Part A and Part B in a ratio of 1 : 1; press cured 5 min/166 °C, post cure 4 hrs/200 °C.

Property	Condition	Value	Method
Appearance	-	transparent	DIN ISO 2137
Hardness Shore A	-	77	ASTM D 2240 Type A
Viscosity, dynamic Component A	-	1150000 mPa·s	-
Viscosity, dynamic Component B	-	1800000 mPa·s	-
Specific gravity	25 °C	1.17 g/cm ³	-
Tensile strength	-	9.4 mPa	-
Tensile strength	-	1370 psi	-
Elongation at break	-	300 %	ASTM D 412
Tear strength	-	21 N/mm	ASTM D 624, Die B
Tear strength	-	150 ppi	ASTM D 624, Die B
Brittle Point	-	< -73 °C	-
Modulus at 100 % elongation	-	4.8 mPa	-
Modulus at 100 % elongation	-	700 psi	-
Pot life ⁽¹⁾	-	At least 48 h	WSTM 2299

¹<HG>4</>, at 25°C

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

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.

Application details

- Medical devices
- Needle-free IV valves
- Drink valves
- Diaphragms
- Soft-Touch handles and buttons
- Organic rubber replacement

Fabricating Liquid silicone rubbers of the ELASTOSIL® LR 3003/80 US A/B series can be processed using standard liquid rubber injection molding techniques. Vulcanization Liquid silicone rubbers of the ELASTOSIL® LR 3003/80 US A/B series are vulcanized by mixing part A with part B in a ratio of 1:1 with the application of heat. Mold temperatures are usually in the range of 160 °C (320 °F) to 210 °C (410 °F). Actual mold temperature and cycle times will be dependent upon a number of factors. Cycles times may be as little as 15 seconds for small parts.

Processing

ELASTOSIL® LR 3003/80 can be fabricated using standard liquid rubber injection molding techniques. The product is delivered equal parts A/B and designed for a 1:1 (A;B) mix ratio. With proper metering equipment, it can be pumped directly through a static mixer into the injection molding machine.

Packaging and storage

Storage

The "Best use before end date" of each batch is shown on the Certificate of Analysis. Storage beyond the date specified on the Certificate of Analysis 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

For specific information regarding safe handling of this material, please refer to the Safety Data Sheet.

QR Code ELASTOSIL® LR 3003/80 US A/B



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

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