



Liveo™ C6-750 LSR

Silicone Elastomers

Liveo™ C6-720 Liquid Silicone Rubber, Liveo™ C6-740 Liquid Silicone Rubber, Liveo™ C6-750 Liquid Silicone Rubber, and Liveo™ C6-770 Liquid Silicone Rubber materials are two-part platinum-catalysed silicone elastomers specifically designed for liquid injection moulding.

The elastomer is supplied as a two-part kit (Part A and Part B), equal portions (by weight) of which must be thoroughly blended together prior to use. The elastomers are thermally cured via an addition-cure (platinum catalysed) reaction.

When blended and cured as indicated, the resulting elastomers consist of crosslinked dimethyl and methyl-vinyl siloxane copolymers and reinforcing silica.

The elastomers can be used without any post-cure, although if necessary, this may be employed to stabilise final properties. Furthermore, the elastomers are heat stable, can be autoclaved, and exhibit high gas permeability compared with most thermoset elastomers and thermoplastics.

Applications

Liveo™ C6-720 Liquid Silicone Rubber, Liveo™ C6-740 Liquid Silicone Rubber, Liveo™ C6-750 Liquid Silicone Rubber, and Liveo™ C6-770 Liquid Silicone Rubber, Parts A and B, are heat-cured elastomers for use by customers fabricating medical devices, including those intended for implantation in humans for less than 30 days and non-implant applications.

Features & Benefits

- Contains no peroxides, peroxide by-products, chlorophenyls or PCBs
- No organic plasticizers, phthalates or latex additives
- Solventless
- Can be post-cured
- Pigmentable
- Designed especially for fully automated systems
- Qualified to address the tests described in ISO 10993-1 for limited (< 24 hours) and prolonged (< 30 days) contact duration
- Meets criteria for cytotoxicity, sensitization, irritation/intracutaneous reactivity, systemic toxicity (acute) and sub-chronic toxicity (as tested by implantation)
- United States Pharmacopoeia (USP) Class VI
- European Pharmacopoeia (Ph. Eur. or EP) silicone elastomers for closures and tubing substances soluble in hexane and volatile matter
- Less tendency for mould-fouling
- Fast Cure Systems
- Batch-to-batch consistency
- Non-blooming

Packaging

Liveo™ C6-720 Liquid Silicone Rubber, Liveo™ C6-740 Liquid Silicone Rubber, Liveo™ C6-750 Liquid Silicone Rubber, and



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Liveo™ C6-770 Liquid Silicone Rubber are supplied in 36 kg pail and 400 kg drum kits, each containing equal portions of Part A and Part B.

Regulatory and Biocompatibility information

Product Regulatory Information document as well as Summary of health data are available from our DuPont website or upon request.

IMPORTANT INFORMATION

THE USER'S ATTENTION IS IN PARTICULAR DRAWN TO THE FOLLOWING STATEMENT: It is the User's responsibility to ensure the safety and efficacy of these materials for all intended uses. While these materials have passed screening tests that are applicable to products intended for implantation for up to 29 days, DuPont makes no end-use representation based on such testing. Nor does DuPont make any representation concerning the suitability of these products for applications of greater than 29 days of implantation in the human body.

Product information

Maximum Service Temperature 205 °C

Rheological properties

Moulding shrinkage, parallel 2.3 % ISO 294-4, 2577

Typical mechanical properties

Modulus at 200% strain	2.7 MPa	ASTM D 412
Tensile Strength	8.8 MPa	ASTM D 412
Elongation at break	>300 %	ASTM D 412
Shore A hardness	48	ASTM D 2240
Compression set at 23°C	14 %	ISO 815
Tear strength, die B	43.0 kN/m	ASTM D 624

Other properties

Density 1130 kg/m³ ISO 1183

Storage and stability

Shelf life 18 months

Additional information

How to use

Mixing

Liveo™ Q7-7840 Liquid Silicone Rubber, Liveo™ Q7-7850 Liquid Silicone Rubber and Liveo™ Q7-7870 Liquid Silicone Rubber are supplied as two-component kits (Parts A and B), which must be mixed in equal portions, by weight, prior to use.

Airless mixing, metering and dispensing equipment are recommended for production operations. Information is available from DuPont on the suppliers of suitable pumping, mixing, and moulding equipment.



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De-airing

If air is introduced during mixing, a vacuum of 711 to 737 mm Hg should be sufficient to de-air the material in 20 to 30 minutes. Use a container 3 to 4 times the volume of the mixture to allow for expansion.

Cure

Cure of the mixed elastomer is initiated by heat. Raising the temperature of the fabrication results in a rapid cure to a tough elastomeric material. The recommended cure temperature for this material is 150°C. Of course minor adjustments may need to be made based on part geometry. A typical curing time should be 3-5 seconds/mm of cross sectional area.

Please note that mixing parts A and B at anything other than a 1:1 ratio will likely change the moulding times, and the resulting materials properties.

CAUTION: The cure may be inhibited by traces of amines, sulfur, nitrogen oxide, organotin compounds and carbon monoxide. Because organic rubbers often contain these substances, they should not come in contact with the uncured elastomer. Catalyst residues from some room temperature vulcanised and peroxidecured silicone elastomers may also inhibit the cure.

Post-curing

The material is crosslinked via an addition-cure (platinum catalysed) reaction. No organic residues such as peroxides or their by-products are present; therefore, post-curing is not required. The user must confirm that molding conditions or short oven cures are suitable for any specific application.

DuPont

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