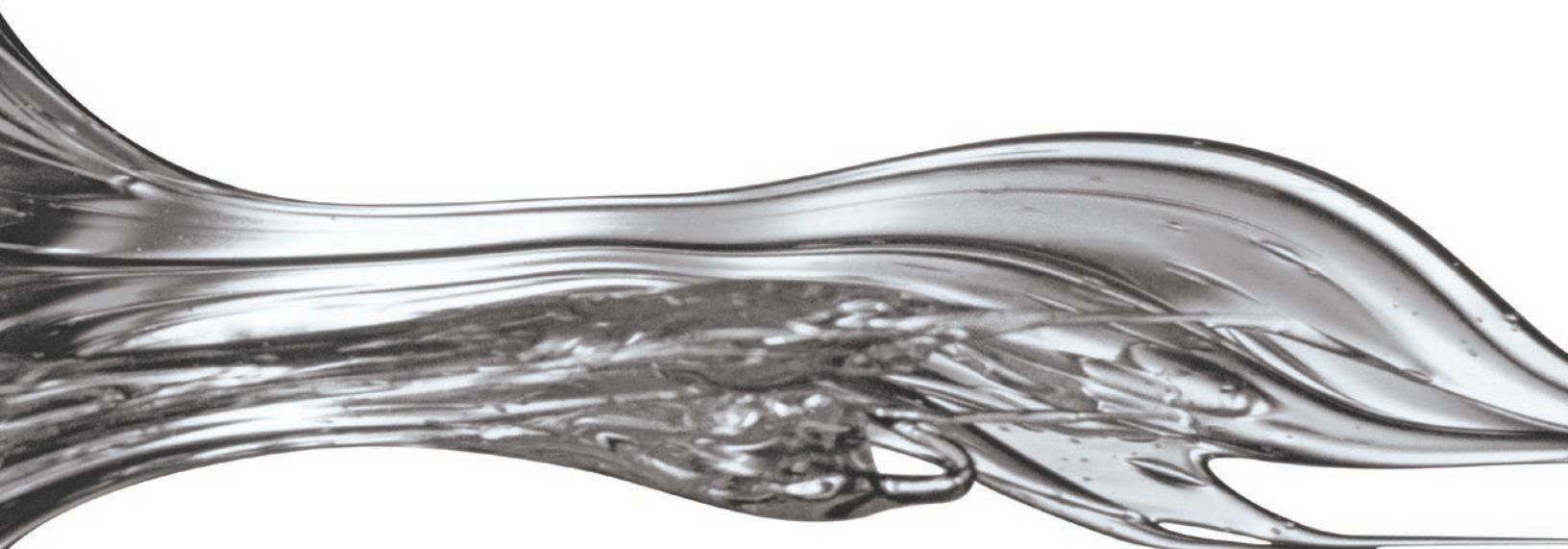


# Liquid silicone rubber

Application and product selection guide





## Liquid silicone rubber (LSR)

LSRs are pumpable thermoset silicone elastomers that can be processed by molding equipment. They are ideal for intricate designs and close-tolerance parts.

## Innovation meets expertise

You want to explore new directions and create the next generation of medical device technology. You have a powerful ally with DuPont™ Liveo™. When we are part of your team, you're backed by our expertise and our culture of discovery and innovation, nurtured by six decades of proven performance. You'll find a depth of knowledge not just in silicone chemistry, but in the medical device industry, process technology, and regulatory compliance.

Benefits	Product Description	Typical Applications
<p><b>Liveo™ BioMedical Grade Liquid Silicone Rubber</b></p>	<ul style="list-style-type: none"> <li>• High-quality, consistent materials for critical applications</li> <li>• Manufactured in a dedicated healthcare facility</li> </ul>	<p>Two-part (1:1 by weight), platinum-catalyzed, liquid silicone rubber materials</p>
<ul style="list-style-type: none"> <li>• DMF (drug master file) access available upon request for select Liveo™ BioMedical Grade materials</li> </ul>	<ul style="list-style-type: none"> <li>• Injection molding of precision and intricate parts of medical devices (O-rings, stoppers and closures)</li> <li>• Mesh or fabric coating</li> </ul>	
<ul style="list-style-type: none"> <li>• Improved molding performance</li> <li>• Formulated to significantly reduce mold fouling</li> <li>• Enhance throughput and limit cleaning and change-outs over time</li> <li>• Improved mechanical properties like tear strength and compression set</li> </ul>		
<p><b>Liveo™ MDX4-4210 BioMedical Grade Elastomer</b></p>	<ul style="list-style-type: none"> <li>• High-quality consistent material for critical applications</li> <li>• Manufactured in a dedicated healthcare facility</li> <li>• Low viscosity, pourable, room temperature cure</li> </ul>	<p>Two-part (base and curing agent, 10:1 by weight) platinum-catalyzed, liquid silicone rubber</p>
<p><b>Liveo™ 7-9600 Soft Filling Elastomer</b></p>	<ul style="list-style-type: none"> <li>• Transparent</li> <li>• Low viscosity</li> </ul>	<p>Two-part (1:1 by weight), platinum catalyzed, soft, filler-less elastomer</p>
<p><b>Liveo™ C6 Series LSR</b></p>	<ul style="list-style-type: none"> <li>• Highly reproducible and stable materials</li> <li>• Manufactured in a dedicated healthcare facility</li> </ul>	<p>Two-part (1:1 by weight), platinum-catalyzed, liquid silicone rubber materials</p>
<ul style="list-style-type: none"> <li>• Injection molding of precision and intricate parts of medical devices (O-rings, stoppers and closures)</li> <li>• Mesh or fabric coating</li> <li>• Implantation applications ≤29 days</li> </ul>		
<ul style="list-style-type: none"> <li>• Improved molding performance</li> <li>• Formulated to significantly reduce mold fouling</li> <li>• Enhance throughput and limit cleaning and change-outs over time</li> <li>• Improved mechanical properties like tear strength and compression set</li> <li>• No need for post cure to stabilize physical properties</li> <li>• Manufactured in a dedicated healthcare facility</li> </ul>		

# REACH compliance on cyclic-siloxanes contents

Concerned Cyclosiloxanes in the majority of the Liveo™ LSR products range\* are below 0.1%, the Substance of Very High Concern (SVHC) threshold proposed by REACH regulation (EC) No 1907/2006.

\* Please contact your DuPont Sales representative for further information

## Biocompatibility Testing

Select European Pharmacopeia 3.1.9

## Products

Products	Biocompatibility Testing										Select European Pharmacopeia 3.1.9		Food Grade Compliance*					
	Cytotoxicity (ISO 10993-5)	Mutagenicity/Genotoxicity (in vitro, ISO 10993-3)	Hemolysis (ISO 10993-4)	Skin Sensitization (ISO 10993-10)	Pyrogenicity (USP) (ISO 10993-11)	90-Day Implant (ISO 10993-6)	30-Day Implant (ISO 10993-6)	7-Day Implant (ISO 10993-6)	USP Class V and VI	Substance Soluble in Hexane	Volatile Matter	Hardness, Shore A	Tensile Strength (MPa/psi)	Elongation at Break (%)	Tear Strength, Die B (kN/m/ppi)	Relative Density		
Liveo™ 7-6830 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	30	8.8/1280	790	24.1/140	1.13
Liveo™ 7-6840 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	40	9.8/1430	700	36.8/210	1.13
Liveo™ Q7-4840 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	44	9.4/1370	540	36.8/210	1.12
Liveo™ Q7-4850 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	50	10.1/1470	630	45.1/260	1.15
Liveo™ 7-4860 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	60	8.8/1280	540	50.9/290	1.10
Liveo™ 7-4870 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	66	9.5/1380	420	47.4/270	1.15
Liveo™ Q7-7840 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	40	9.3/1360	750	30.7/175	1.14
Liveo™ Q7-7850 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	50	9.0/1310	660	48.2/275	1.13
Liveo™ Q7-7870 BioMedical Grade Liquid Silicone Rubber <sup>1</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	67	9.4/1370	415	45.6/260	1.14
Liveo™ MDX4-4210 BioMedical Grade Elastomer	•	•	•	•	•	•	•	•	•	•	•	•	•	Contact your DuPont account representative for further information.				
Liveo™ 7-9600 Soft Filling Elastomer	•	•	•	•	•	•	•	•	•	•	•	•	•	Contact your DuPont account representative for further information.				
Liveo™ C6-530 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	30	8.2/1190	830	26.3/150	1.13
Liveo™ C6-540 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	40	8.9/1290	740	42.1/240	1.13
Liveo™ C6-550 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	50	10.4/1520	660	44.7/255	1.14
Liveo™ C6-560 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	60	8.8/1280	540	50.9/290	1.10
Liveo™ C6-570 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	65	9.1/1320	440	54.4/310	1.15
Liveo™ C6-720 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	23	6.5/943	750	26.0/148	1.14
Liveo™ C6-740 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	40	8.6/1250	680	30.7/175	1.14
Liveo™ C6-750 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	50	8.8/1280	610	42.1/240	1.13
Liveo™ C6-770 Liquid Silicone Rubber	•			•				•	•	•	•	•	•	67	9.3/1360	450	42.1/240	1.14

<sup>1</sup> Use of this material for implantation ≥ 30 days requires indemnification  
\* Contact your DuPont representative for area-specific information

▲ Biocompatibility potential based on test data from analogous materials



To learn more about DuPont's  
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