

Tubing

To assure consistent quality for medical device and pharmaceutical applications, *Dow Corning®* and *Silastic®* brand tubing products are manufactured, packaged, and tested utilizing principles of GMP guidelines for both Active Pharmaceutical Ingredients (APIs) and Medical Devices.

<h1>Tubing</h1> <p>To assure consistent quality for medical device and pharmaceutical applications, <i>Dow Corning®</i> and <i>Silastic®</i> brand tubing products are manufactured, packaged, and tested utilizing principles of GMP guidelines for both Active Pharmaceutical Ingredients (APIs) and Medical Devices.</p>			<h2>Regulatory Status (tubing)</h2> <div>Selected 3-A Sanitary Standards</div> <div>USP (661) Physiochemical Tests - Plastics</div> <div>USP (381) Elastomeric Closures for Injection</div> <div>Ph. Eur. (EP) Monograph 3.1.9. Silicone Elastomer for Closures and Tubing</div> <div>FDA Regulation 21 CFR 177.2600 (Food Grade)</div> <h2>Biocompatibility Tests (base elastomer)</h2> <div>Cytotoxicity</div> <div>Mutagenicity/Genotoxicity</div> <div>Hemolysis</div> <div>Skin Sensitization</div> <div>Pyrogenicity (USP)</div> <div>90-day Implant (exceeds USP Class VI)</div> <div>USP Class V and VI</div>													
			<h2>Biopharmaceutical and Pharmaceutical Tubing</h2>													
			<b>Description</b>  Silicone tubing produced from platinum-catalyzed silicone elastomer for transfer applications in pharmaceutical and biotechnological manufacturing	<b>Typical Applications</b> <ul style="list-style-type: none"><li>• Ultra-pure fluid transfer</li><li>• Filling machines</li><li>• Steam or gas transfer</li><li>• Cleanroom</li><li>• Veterinary</li></ul>	<i>Dow Corning®</i> Pharma-50 Tubing	•	•	•	•	•	•	•	•	•	•	
					<i>Dow Corning®</i> Pharma-65 Tubing	•	•	•	•	•	•	•	•	•	•	•
					<i>Dow Corning®</i> Pharma-80 Tubing	•	•	•	•	•	•	•	•	•	•	•
					<i>Silastic®</i> Laboratory Tubing, 7-5224 (cat. # 508)	•	•	•	•	•	•	•	•	•	•	•
					<i>Silastic®</i> Laboratory Tubing, 7-5225 (cat. # 515)	•	•	•	•	•	•	•	•	•	•	•
				Extended peristaltic pump delivery	<i>Dow Corning®</i> Pharma Advanced Pump Tubing	•	•	•	•	•	•	•	•	•	•	•
			High/low pressure applications	<i>Dow Corning®</i> Pharma-65 Reinforced Tubing	•	•	•	•	•	•	•	•	•	•	•	
			Kink-resistant													
			<h2>Molded Tubing Assemblies</h2>													
			<b>Description</b>  Custom-molded assemblies for critical fluid transfer applications	<b>Typical Applications</b> <ul style="list-style-type: none"><li>• Biopharmaceutical and pharmaceutical fluid transfer</li></ul>	<i>Dow Corning®</i> Pharma Fabricated Tubing Assembly (HCR-based)	•	•	•	•	•	•	•	•	•	•	
					<i>Dow Corning®</i> Pharma Fabricated Tubing Assembly (LSR-based)	•	•	•	•	•	•	•	•	•	•	•
			<h2>Medical Grade Tubing</h2>													
<b>Description</b>  Silicone tubing produced from platinum-catalyzed silicone elastomer for critical medical device applications	<b>Typical Applications</b> <ul style="list-style-type: none"><li>• Infusion therapy<ul style="list-style-type: none"><li>- Drug delivery</li><li>- Nutritional therapy – feeding tubes</li></ul></li><li>• Medical catheters<ul style="list-style-type: none"><li>- Urology catheters</li><li>- Respiratory catheters</li></ul></li><li>• Shunts</li><li>• Cardiac pacing leads</li></ul>	<i>Silastic®</i> Rx-50 Medical Grade Tubing	•	•	•	•	•	•	•	•	•	•				
		<i>Silastic®</i> Rx-65 Medical Grade Tubing	•	•	•	•	•	•	•	•	•	•	•			
		<i>Silastic®</i> Rx-80 Medical Grade Tubing	•	•	•	•	•	•	•	•	•	•	•			
		<i>Silastic®</i> Rx 50R Medical Grade Tubing Radiopaque Special	•	•	•	•	•	•	•	•	•	•	•			
		<i>Silastic®</i> Rx 65R Medical Grade Tubing Radiopaque Special	•	•	•	•	•	•	•	•	•	•	•			
		<i>Silastic®</i> Rx 80R Medical Grade Tubing Radiopaque Special	•	•	•	•	•	•	•	•	•	•	•			
	Cardio-pulmonary bypass	<i>Silastic®</i> Rx Pump Tubing	•	•	•	•	•	•	•	•	•	•				
	Drug delivery															
	High/low pressure applications	<i>Silastic®</i> Rx-50 Reinforced Medical Grade Tubing	•	•	•	•	•	•	•	•	•	•				
	Kink-resistant															

<sup>1</sup> Based on elastomer.

Typical Properties†

Burst Pressure (for 0.375 in. ID x 0.625 in. OD)				
Barium Sulfate Content				
Tensile Strength at Break				
Modulus at 200% Elongation				
Elongation				
%	MPa (psi)	MPa (psi)	w/w%	Bar (psi)
795	2.1 (310)	8.7 (1265)		4.1 (59)
775	2.8 (415)	6.8 (990)		7.7 (112)
570	3.9 (570)	7.0 (1025)		13.2 (192)
616		8.1 (1177)		
507		7.6 (1109)		
590	3.0 (435)	8.9 (1290)		3.4 (50)
890 <sup>1</sup>	2.82 (409) <sup>1</sup>	7.94 (1151) <sup>1</sup>		41.2 (597)
815	2.1 (302)	9.6 (1388)	13	
613	2.7 (391)	9.0 (1301)		
831	4.0 (581)	7.1 (1030)		
805	2.2 (312)	9.6 (1395)		
600	2.6 (375)	9.1 (1320)		
825	2.6 (380)	7.3 (1060)		
815	2.1 (302)	9.6 (1388)		
930 <sup>1</sup>		10.0 (1450) <sup>1</sup>		

† Specifications Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office prior to writing specifications on these products.