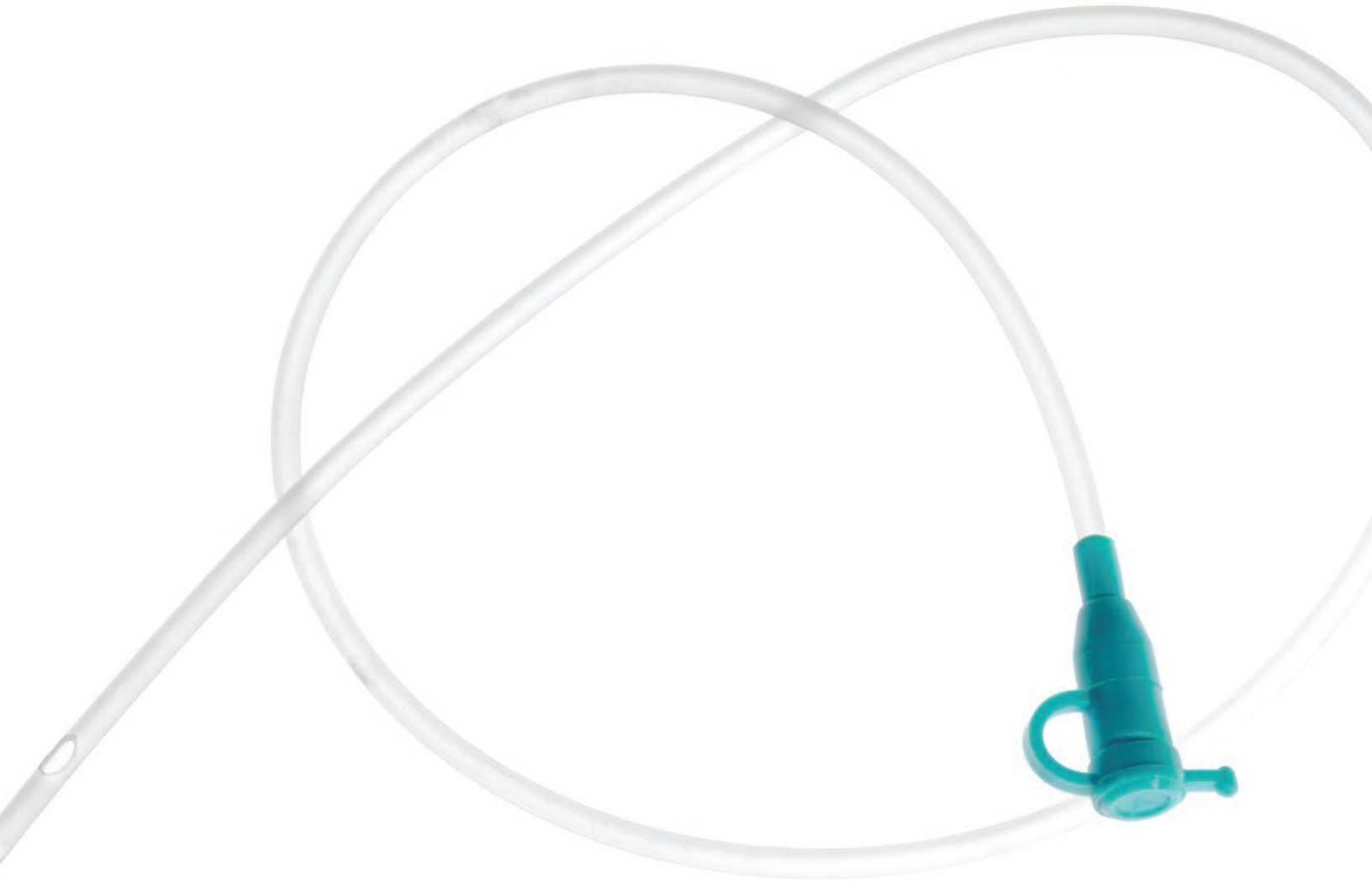
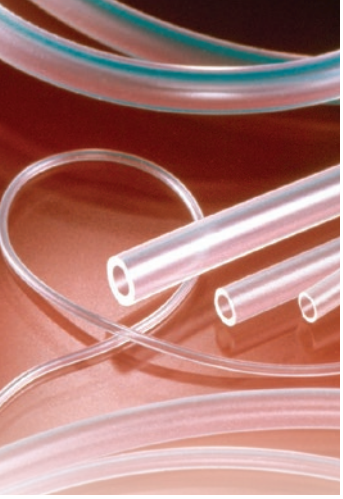
Healthcare Solutions

DUPONT™

High consistency rubber

Application and product selection guide





High consistency rubber (HCR)

HCRs are millable thermoset silicone elastomers that can be extruded continuously to form a desired size and shape before curing. Silicone tubing is an example.

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. When we are part of your team, you're backed by our expertise and our culture of discovery and innovation, which has been 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
Silastic™ BioMedical Grade Elastomers • DMF (drug master file) access available upon request for select Silastic™ BioMedical Grade materials	• Excellent batch-to-batch reproducibility for critical applications • Manufactured in a dedicated healthcare facility	Two-part (1:1 by weight), platinum-catalyzed, enhanced tear-resistance silicone elastomers	• Fabrication of extruded parts • Fabrication of molded medical/surgical/diagnostic devices and components
Silastic™ BioMedical Grade Bases • DMF (drug master file) access available upon request for select Silastic™ BioMedical Grade materials • Must add peroxide			
Dow Corning™ C6 Series Elastomers	• Highly reproducible and stable materials • Manufactured in a dedicated healthcare facility • Improved cost efficiency	Two-part (1:1 by weight), platinum-catalyzed, enhanced tear-resistance silicone elastomers	• Fabrication of extruded parts • Fabrication of molded medical/surgical/diagnostic devices and components
Dow Corning™ C6 Series Elastomers • Must add peroxide		One-part, high-consistency rubber base	
Dow Corning™ QP1 Elastomers • Base, must add curatives	• Choice of cure systems (peroxide/platinum) • Manufactured under ISO quality system requirements	One-part, high-consistency rubber base	• Fabrication of extruded parts • Fabrication of molded medical/surgical/diagnostic devices and components
Dow Corning™ C6 Series Elastomers • Low hysteresis	• Lower hysteresis for demanding applications (i.e. peristaltic pump tubing)	Two-part (1:1 by weight), platinum-catalyzed, enhanced tear-resistance silicone elastomers	• Fabrication of extruded parts • Fabrication of molded medical/surgical/diagnostic devices and components

Products	Biocompatibility Testing									Select European Pharmacopeia 3.1.9							
	Cytotoxicity	Mutagenicity/Genotoxicity	Hemolysis	Skin Sensitization	Pyrogenicity (USP)	90-Day Implant	30-Day Implant	7-Day Implant	USP Class V and VI	Substance Soluble in Hexane	Volatile Matter	Food Grade Compliance*	Hardness, Shore A	Tensile Strength (MPa/psi)	Elongation at Break (%)	Tear Strength, Die B (kN/m/ppi)	Relative Density
Silastic™ Q7-4720 BioMedical Grade ETR Elastomer[1]	•	•	•	•	•	•	•	•	•	•	•	•	23	8.9/1300	1310	31.6/180	1.11
Silastic™ Q7-4735 BioMedical Grade ETR Elastomer[1]	•	•	•	•	•	•	•	•	•	•	•	•	36	9.3/1350	1180	36.8/210	1.12
Silastic™ Q7-4750 BioMedical Grade ETR Elastomer[1]	•	•	•	•	•	•	•	•	•	•	•	•	50	10.0/1450	930	45.6/260	1.16
Silastic™ Q7-4765 BioMedical Grade ETR Elastomer[1]	•	•	•	•	•	•	•	•	•	•	•	•	65	8.0/1160	900	45.6/260	1.20
Silastic™ Q7-4780 BioMedical Grade ETR Elastomer[1]	•	•	•	•	•	•	•	•	•	•	•	•	77	7.8/1130	660	42.1/240	1.20
Silastic™ Q7-4535 BioMedical Grade ETR Elastomer[1, 2]	•	•	•	•	•	•	•	•	•	•	•	•	36	8.1/1180	830	24.6/140	1.12
Silastic™ Q7-4550 BioMedical Grade ETR Elastomer[1, 2]	•	•	•	•	•	•	•	•	•	•	•	•	48	9.3/1360	680	31.6/180	1.16
Silastic™ Q7-4565 BioMedical Grade ETR Elastomer[1, 2]	•	•	•	•	•	•	•	•	•	•	•	•	67	7.9/1150	620	38.6/220	1.20
Dow Corning™ C6-135 Elastomer	•			•			•	•	•	•	•	•	36	8.2/1200	1120	35.1/200	1.12
Dow Corning™ C6-150 Elastomer	•			•			•	•	•	•	•	•	50	10.6/1540	980	42.1/240	1.16
Dow Corning™ C6-165 Elastomer	•			•			•	•	•	•	•	•	61	8.0/1170	940	42.1/240	1.21
Dow Corning™ C6-180 Elastomer	•			•			•	•	•	•	•	•	77	7.2/1050	610	38.6/220	1.21
Dow Corning™ C6-235 Elastomer[2]	•			•			•	•	•	•	•	•	37	7.5/1100	810	21.1/120	1.12
Dow Corning™ C6-250 Elastomer[2]	•			•			•	•	•	•	•	•	49	8.2/1200	530	26.3/150	1.16
Dow Corning™ C6-265 Elastomer[2]	•			•			•	•	•	•	•	•	66	8.2/1200	560	35.1/200	1.20
Dow Corning™ QP1-30 Silicone Elastomer[3]	•							•	•			•	28	9.5/1390	790	12.3/70	1.09
Dow Corning™ QP1-50 Silicone Elastomer[3]	•							•	•			•	48	11.8/1720	545	15.8/90	1.13
Dow Corning™ QP1-60 Silicone Elastomer[3]	•							•	•			•	57	13.0/1890	535	21.1/120	1.16
Dow Corning™ QP1-70 Silicone Elastomer[3]	•							•	•			•	68	12.6/1835	470	24.6/140	1.20
Dow Corning™ C6-350 LH Elastomer	•			•			•	•	•	•	•	•	49	8.5/1240	730	38.6/220	1.15

[1] Use of this material for implantation ≥ 30 days requires indemnification

[2] 1.0 parts Di(2,4-Dichlorobenzoil) peroxide compounded with 100 parts base molded 5 min at 115°C (240°F)

[3] 1.2 parts Di(2,4-Dichlorobenzoil) peroxide compounded with 100 parts base molded 5 min at 115°C (240°F)

* Contact your DuPont representative for area-specific information

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