

Medical Tubing and Molded Parts



Medical Products

A Phthalate-free Alternative to PVC

Features/Benefits

- Significantly fewer TOC extractables than PVC
- Certified to be free of materials of animal origin
- Biocompatible
- Silicone alternative
- DEHP-free/PVC alternative
- Clear and opaque formulations

Typical Applications

- Fluid transfer tubing
- Custom molded components
- Surgical handle covers
- Medical instrument protectors
- Prosthetic components
- Stethoscope covers

C-Flex[®] Thermoplastic Elastomer Medical Tubing and Molded Parts

C-Flex[®] is a unique, patented family of thermoplastic elastomer compounds designed to meet the demands of critical medical applications. C-Flex[®] materials are ideal for use as fluid transfer tubing, as well as for molded elastomeric components such as soft-touch grips, handles, seals, gaskets, and other medical components.

Characteristics

C-Flex[®] combines the processing advantages of thermoplastics with the properties of vulcanized rubber. When heated, thermoplastic elastomers melt and can be extruded or formed into complex shapes using standard thermoplastic melt processing equipment. As solids, thermoplastic elastomers are soft, flexible and resilient like rubber and can be decorated, reground and reprocessed without significant property loss.

C-Flex[®]'s patented formulations range in hardness from 5 Shore A through 95 Shore A, are fully colorable, and can be extruded as tubing, custom profiles, or molded. C-Flex[®] does not contain any latex rubber, polyvinyl chloride, silicone rubber or polyurethane, and it is DEHP-free.

Biocompatibility

C-Flex[®] formulations are biocompatible blends formulated to meet the rigorous testing standards of the medical device industry, including USP Class VI requirements.

Clear Medical Grade

Typical Physical Properties	R70-046	R70-050	R70-085	R70-082	R70-051
Durometer	35A	50A	50A	60A	70A
Tensile Strength, psi (ASTM D412)	650	810	850	925	795
Elongation, % (ASTM D412)	850	820	780	700	600
Tensile Modulus, @ 100%/300%, psi (ASTM D412)	65/130	120/283	150/260	170/285	275/425
Tensile Set, %	36	73	50	92	123
Tear Resistance, lb/in., Die C, Die B	130/135	120/100	143/124	175/130	130/150
Compression Set, %	64	53	49	57	59
Product Characteristics					
Blood Compatibility	Yes	Yes	No	Yes	Yes
USP Class VI	Yes	Yes	Yes	Yes	Yes
Hemolysis	Yes	Yes	Yes	Yes	Yes
Cytotoxicity	Yes	Yes	Yes	Yes	Yes
Pyrogen	Yes	Yes	No	Yes	Yes
Sterilization Methods					
Steam/Autoclave	No	Yes	Yes	Yes	Yes
Radiation (Gamma or Beta)	Yes	Yes	Yes	Yes	Yes
Ethylene Oxide	Yes	Yes	Yes	Yes	Yes

Opaque Medical Grade

Typical Physical Properties	R70-005	R70-028	R70-001	R70-072	R70-026
Durometer	30A	35A	50A	60A	90A
Tensile Strength, psi (ASTM D412)	520	650	930	900	1100
Elongation, % (ASTM D412)	750	725	725	650	425
Tensile Modulus, @ 100%/300%, psi (ASTM D412)	60/100	70/130	100/190	160/225	700/800
Tensile Set, %	33	33	64	75	185
Tear Resistance, lb/in., Die C, Die B	200/150	146/187	130/124	180/135	404/409
Compression Set, %	63	71	67	60	74
Product Characteristics					
USP Class VI	Yes	Yes	Yes	Yes	Yes
Hemolysis	Yes	Yes	Yes	Yes	Yes
Cytotoxicity	Yes	Yes	Yes	Yes	Yes
Pyrogen	No	No	Yes	Yes	No
Sterilization Methods					
Steam/Autoclave	No	No	Yes	Yes	Yes
Radiation (Gamma or Beta)	Yes	Yes	Yes	Yes	No
Ethylene Oxide	Yes	Yes	Yes	Yes	Yes

QUOTATIONS FOR TUBING AND MOLDED PARTS AVAILABLE UPON REQUEST

C-Flex® tubing is not intended for use as an implant material.

C-Flex® is a registered trademark.



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IMPORTANT: It is the user's responsibility to ensure the suitability and safety of Saint-Gobain Performance Plastics tubing for all intended uses. Laboratory and clinical tests must be conducted in accordance with applicable regulatory requirements in order to determine the safety and effectiveness for use of tubing in any particular application.

For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product to be free from defects in materials and workmanship. Our only obligation will be to replace any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risk, if any, including the risk of injury, loss or damage, direct or consequential, arising out of the use, misuse, or inability to use, this product. THIS WARRANTY IS IN LIEU OF THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. No deviation is authorized.

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