Technical Data Sheet





ChronoFlex C[™]

| Aromatic Polycarbonate-based Urethanes

Product Description

ChronoFlex C is a family of Biodurable aromatic polycarbonate-based thermoplastic urethanes designed to overcome surface degradation such as stress-induced micro-fissures.

With a long history of reliable performance in both long- and short-term devices, this medical grade polymer has the versatility to be used across a broad range of applicational areas ranging from oncology and orthopedics to cardiovascular disease management.

These ether-free polyurethane elastomers are biostable and display a low modulus of elasticity, excellent solvent resistance and limited softening in-vivo.

These products are adaptable to most standard manufacturing processes and are available in hardnesses ranging from 75 Shore A to 75 Shore D.

	Key Features	 Biodurable & Biocompatible USP Class VI Excellent Chemical Resistance Low Modulus of Elasticity Inherent Material Strength 	 Animal-Free Origin Certified Tailored To Meet Mechanical Specifications Reliable Performance in Long- And Short- Term Implantable Devices
	Forms	PelletSolution	
General	Processing Methods	 Extrusion Injection and Blow molding Dip Coating Solution casting Film formation Solvent coating methods 	
	Common Applications	CardiologySurgeryEndoscopicUrologyNephrology	 Neurology Orthopedics Drug Delivery Diabetes Management Gastroenterology Ear/Nose/Throat

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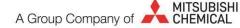
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FDA Master Files It is the responsibility of the user to establish safety with the FDA for their specific medical device.

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Technical Properties

Mechanical Characteristic Range

ChronoFlex C [™] (typical	ASTM Standard		
Durometer Range Available	75 Shore A – 75 Shore D		D2240
Water Absorption	0.25 – 1.00 %		D570
Melt Flow	2 – 26 g/10 min 205° C/3.26 kg		D1238
Durometer	80A	75D	
Ultimate Tensile Strength (psi)	5500 – 11000	6000 - 12000	D638
Tensile (psi)			
@50% elongation	500 – 800	4600 - 5400	D638
@100% elongation	800 – 1000	4800 - 5800	D638
@200% elongation	1500 - 2000	7000 - 8500	
@300% elongation	3000 - 5200	-	D638
Ultimate Elongation (%)	400 - 750	200 – 350	D638

^{*}Data provided herein is meant to show a general range for the ChronoFlex C product lines; these properties can be tailored to meet specific values based on customer requirements.

Biocompatibility Testing	TEST	USP Class VI	ISO GUIDELINE
	MEM Elution		Meets ISO 10993-5 guidelines
	AGAR Overlay		Meets ISO 10993-5 guidelines
	Systemic Injection Test	Meets Class VI guidelines	Meets ISO 10993-11 guidelines
	Intracutaneous Injection Test	Meets Class VI guidelines	Meets ISO 10993-10 guidelines
	Intramuscular Implantation (macro)	Meets Class VI guidelines	
	Phthalate Free		Does not contain or in contact with DEHP
ш	Animal-Free Origin Certified		BSE/TSE free

Pre-Processing Recommendations:

ChronoFlex C processing can be optimized by drying to a moisture content equal to or less than 0.05% by weight prior to melt processing.

Typically, the pellets must be dried for 3-4 hours with a dryer inlet air temperature of 180°F +/- 20°F. We recommend a machine-mounted desiccant-type hopper dryer, capable of reaching and maintaining a dew point of -40°F. If dry times are in excess of 8-10 hours, a hopper dryer temperature of 120-150°F is usually sufficient to achieve optimal moisture content.

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