

## AdvanSource Biomaterials ChronoFlex® C 75D Biodurable Medical Grade Polyurethane

Category : Polymer , Thermoplastic , Elastomer, TPE , Polycarbonate (PC) , Polyurethane, TP , Polycarbonate-Urethane

### Material Notes:

ChronoFlex® C is a family of premium polycarbonate aromatic biodurable thermoplastic polyurethane elastomers developed by AdvanSource Biomaterials Corporation. ChronoFlex® C medical-grade elastomers are manufactured under strict GMP conditions. Polycarbonate polyurethanes have been shown to minimize surface degradation such as stress induced microfissures. Aromatic materials have good solvent resistance and limited softening in the body. Information provided by AdvanSource Biomaterials Corporation.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_AdvanSource-Biomaterials-ChronoFlex-C-75D-Biodurable-Medical-Grade-Polyurethane.php](http://www.lookpolymers.com/polymer_AdvanSource-Biomaterials-ChronoFlex-C-75D-Biodurable-Medical-Grade-Polyurethane.php)

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.80 %	0.80 %	ASTM D570
Melt Flow	3.0 g/10 min @Load 2.17 kg, Temperature 210 °C	3.0 g/10 min @Load 4.78 lb, Temperature 410 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	75	75	
Tensile Strength, Ultimate	48.3 - 55.2 MPa	7000 - 8000 psi	Conditioned 7 days at RT/50% RH; ASTM D638
Elongation at Break	255 - 320 %	255 - 320 %	Conditioned 7 days at RT/50% RH; ASTM D638
100% Modulus	0.0365 - 0.0393 GPa	5.30 - 5.70 ksi	Secant; Conditioned 7 days at RT/50% RH; ASTM D638
300% Modulus	0.0186 - 0.0221 GPa	2.70 - 3.20 ksi	Secant; Conditioned 7 days at RT/50% RH; ASTM D638
Flexural Strength	6.89 MPa	1000 psi	ASTM D790
Flexural Modulus	0.207 GPa	30.0 ksi	ASTM D790
Coefficient of Friction, Dynamic	0.64	0.64	ASTM D1894
Abrasion	0.053	0.053	% loss/1000 cycles; ASTM D1044

Electrical Properties	Metric	English	Comments
Dielectric Strength	16.5 kV/mm	420 kV/in	ASTM D149

Processing Properties	Metric	English	Comments
Zone 1	216 °C	420 °F	
Zone 2	224 °C	435 °F	
Zone 3	232 °C	450 °F	
Die Temperature	238 °C	460 °F	
Melt Temperature	238 °C	460 °F	
Drying Temperature	96.1 - 116 °C	205 - 240 °F	
Dry Time	3 - 4 hour	3 - 4 hour	
Moisture Content	<= 0.10 %	<= 0.10 %	
Dew Point	-40.0 °C	-40.0 °F	

Descriptive Properties	Value	Comments
Appearance	Clear to slightly cloudy	
Class VI Biocompatibility	Passes	U.S.P. XXII
Recommended Sterilization	Gamma, E-Beam, Ethylene Oxide	

## Contact Songhan Plastic Technology Co.,Ltd.

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