ChronoFlex® C 55D

Polyurethane

CardioTech International, Inc.

Message:

ChronoFlex®C 55D is a polyurethane material. This product is available in North America and is processed by extrusion. ChronoFlex®The main characteristics of C 55D are: chemical resistance.
ChronoFlex®The typical application areas of C 55D are: medical/health care

General Information			
Features	Aroma Solvent resistance		
Uses	Medical/nursing supplies		
Appearance	Clear/transparent		
Forms	Particle		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.20	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (210°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Water Absorption (Equilibrium)	1.0	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	55		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			ASTM D638
100% secant: 23°C	14.0	MPa	ASTM D638
300% secant: 23°C	12.8	MPa	ASTM D638
Tensile Strength (Break, 23°C)	46.5	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	400	%	ASTM D638
Flexural Modulus	64.1	MPa	ASTM D790
Flexural Strength	3.79	MPa	ASTM D790
Coefficient of Friction (vs. Itself - Dynamic)	0.80		ASTM D1894
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	13.1	MPa	ASTM D412
Tensile Strength (Yield)	51.7	MPa	ASTM D412
Tensile Elongation (Yield)	330	%	ASTM D412
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	82.2	°C	ASTM D1525
Melting Temperature	191 - 221	°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength	20	kV/mm	ASTM D149

Additional Information
Ultimate Tensile Strength, ASTM D638, 73 °F: 6000 to 7500 psiUltimate Tensile Strain, ASTM D638, 73 °F: 365 to 440 %100% Secant Modulus, ASTM D638, 73 °F: 1850 to 2200 psi300% Secant Modulus, ASTM D638, 73 °F: 1700 to 2000 psiAbrasion Resistance, ASTM D1044, 1000 cycles: 0.035%Recommended Sterilization Method, No standard: E beamClass VI Biocompactibility Test, USP XXII: Pass

Extrusion	Nominal Value	Unit
Drying Time	3.0 - 4.0	hr
Cylinder Zone 1 Temp.	216	°C
Cylinder Zone 2 Temp.	224	°C
Cylinder Zone 3 Temp.	232	°C
Melt Temperature	238	°C
Die Temperature	238	°C

Recommended distributors for this material

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