ChronoThane™ T 93A-B20

Thermoplastic Polyurethane Elastomer (Polyether)

AdvanSource Biomaterials Corp.

Message:

ChronoThane T is a family of aliphatic ether based polyurethane elastomers.
These biocompatible materials possess characteristics such as low coefficient of friction, low extractables, dimensional stability, high impact resistance, and excellent tear strength.
ChronoThane T can be tailored to meet specific Melt Flow Index ranges to suit your manufacturing or extrusion processes.
These materials are available in hardnesses ranging from 75 Shore A to 75 Shore D.
AdvanSource Biomaterials synthesizes and manufactures medical grade materials offering the ability to tailor physical and mechanical characteristics to support and enhance your end product design.
These mechanical characteristic's, critical to the design and development of medical devices, can incorporate a wide range of physical and chemical properties while maintaining core characteristics such as biodurability and biocompatibility. In most materials, specialized characteristics such as the addition of colorant agents or antimicrobial properties (where applicable) can be added to the polymer to provide a homogenous material and limit secondary processing steps.
In addition, radiopaque agents may also be incorporated into the formula to provide additional product enhancements and may contain up to 40%, by weight, of a radiopaque agent thus allowing varied-scale visibility options.
With an expanding range of secondary operations including custom solution development, prototype coating capabilities, and project management services, ASB's expert team of chemists, scientists, engineers and industry professionals assist in every stage of customers' projects, from concept initiation through full-scale manufacture.

General Information	
Features	Aliphatic
	Biocompatible
	Good Dimensional Stability
	Good Processability
	Good Tear Strength
	High Impact Resistance
	Low Extractables
	Low Friction
	No Animal Derived Components
Agency Ratings	ISO 10993 Part 5
	USP Class VI
Forms	Pellets
Processing Method	Extrusion
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Melt Mass-Flow Rate (MFR) (170°C/2.16 kg)	2.0 to 26	g/10 min	ASTM D1238
Water Absorption (Saturation)	1.0 to 1.2	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A)	93		ASTM D2240

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Break	37.2 to 48.3	MPa	
50% Strain	6.21 to 7.58	MPa	
100% Strain	6.89 to 11.0	MPa	
200% Strain	12.4 to 15.9	MPa	
300% Strain	19.3 to 21.4	MPa	
Tensile Elongation (Break)	400 to 650	%	ASTM D638
Injection	**Nominal Value**	**Unit**	
Drying Temperature - Desiccant Dryer	71.1 to 93.3	°C	
Drying Time - Desiccant Dryer	3.0 to 4.0	hr	
Dew Point	-40.0	°C	
Suggested Max Moisture	0.050	%	

Recommended distributors for this material

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