ChronoPrene™ 15A

Thermoplastic Elastomer

AdvanSource Biomaterials Corp.

Message:

This biocompatible elastomer may be considered as a substitute for rubber, latex and silicone materials. Soft and compliant, the ChronoPrene resins offer a high flexural modulus, as well as a superior combination of tensile strength and elongation.
An easy molding, high-flow material, ChronoPrene can be processed using conventional extrusion, injection molding and blowmolding methods. Its physical properties make it an optimal material for applications requiring elastic characteristics, such as compliant/ non-compliant balloons, endoscopic and laparoscopic inflation bags.
ChronoPrene can be processed at low temperatures, resulting in excellent surface smoothness and superior elasticity. ChronoPrene exhibits high abrasion resistance, durability and UV stability and is available in hardnesses ranging from 5 Shore A to 75 Shore A.
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	Biocompatible
	Durable
	Good Abrasion Resistance
	Good Chemical Resistance
	Good Moldability
	Good Surface Finish
	Good UV Resistance
	High Elongation
	High Flow
	Hydrophobic
	No Animal Derived Components
	Soft
Uses	Medical/Healthcare Applications
Agency Ratings	ISO 10993 Part 5
	USP Class VI
Forms	Pellets
Processing Method	Blow Molding
	Extrusion
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.0 to 26	g/10 min	ASTM D1238
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A)	15		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638
Break	6.21 to 8.96	MPa	
50% Strain	0.138 to 0.207	MPa	
100% Strain	0.276 to 0.345	MPa	
200% Strain	0.414 to 0.552	MPa	
300% Strain	0.552 to 0.689	MPa	
Tensile Elongation (Break)	1700 to 2000	%	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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