PolyBlend™ 1100-80A

Thermoplastic Polyurethane Elastomer Alloy

AdvanSource Biomaterials Corp.

Message:

PolyBlend is a family of exceptionally soft, aromatic polyurethane elastomeric alloys, which can be used as a substitute for natural rubber or latex in many applications.
These polymers encompass unique characteristics such as low flexural modulus, moderate tensile strength, and high elongation, in addition to allowing for a high draw-down ratio due to its superior melt strength and chemical integrity.
PolyBlend can be processed on conventional extrusion or injection molding equipment and is available in hardnesses ranging from 45 Shore A to 80 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	Aromatic Biocompatible Good Drawdown Good Flexibility Good Melt Strength High Elongation Medium Strength No Animal Derived Components Soft
Agency Ratings	ISO 10993 Part 5
Forms	Pellets
Processing Method	Extrusion Injection Molding

Physical	Nominal Value	Unit	Test Method
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.0 to 26	g/10 min	ASTM D1238
Water Absorption (Saturation)	0.067 to 0.28	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A)	80		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638

Break	7.58 to 29.3	MPa	
50% Strain	3.10 to 4.83	MPa	
100% Strain	4.14 to 5.86	MPa	
200% Strain	5.17 to 7.58	MPa	
300% Strain	6.55 to 8.96	MPa	
Tensile Elongation (Break)	400 to 950	%	ASTM D638

Recommended distributors for this material

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WECHAT