

AVAILABLE IN HARDNESSES RANGING FROM
75 Shore A to 75 Shore D

PolyBlend 1100™

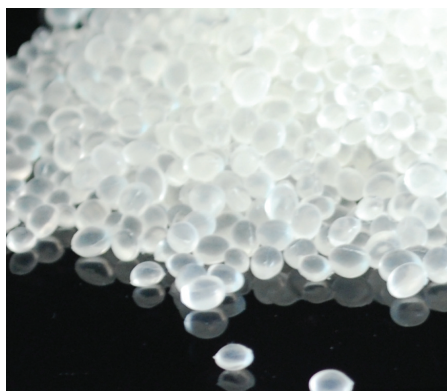
Smooth and Pliable; Stretching beyond the boundaries.

Description

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.



POLYBLEND IN PELLET FORM

The ASB Advantage

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 characteristics, 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 biodegradability 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.

An ASB product

BIODURABLE

EXCELLENT SUBSTITUTE FOR RUBBER OR LATEX MATERIALS

TAILORED TO MEET MECHANICAL SPECIFICATIONS

EXCEPTIONALLY SOFT

AVAILABLE IN RADIOPAQUE FORM

EXTREMELY FLEXIBLE

ALLOWS FOR HIGH DRAW DOWN RATIOS

EXTRUDABLE / INJECTION MOLDABLE

SUPERIOR MELT STRENGTH

HIGH ELONGATION

BIOCOMPATIBLE

ANIMAL-FREE ORIGIN CERTIFIED



Creating Technology. Enabling Success.



TYPICAL MECHANICAL CHARACTERISTIC RANGES

PolyBlend 1100

		ASTM Standard
Durometer Range Available	45 Shore A – 80 Shore A	D2240
Water Absorption	0.067 – 0.28%	D570
Melt Flow	2 – 26 g/10 min 190° – 205° C/ 2.16 – 8.26 kg	D1238

MECHANICAL PROPERTY RANGES (EXAMPLE RANGES SHOWN)*

Durometer	45A	55A	80A	
Ultimate Tensile Strength (psi)	1700 – 2100	700 – 900	1100 – 4250	D638
Tensile (psi)				
@ 50% elongation	40 – 100	100 – 150	450 – 700	D638
@ 100% elongation	100 – 150	150 – 200	600 – 850	D638
@ 200% elongation	150 – 200	200 – 250	750 – 1100	D638
@ 300% elongation	175 – 250	275 – 300	950 – 1300	D638
Ultimate Elongation (%)	1350 – 1700	950 – 1100	400 – 950	D638

*Data provided herein is meant to show a general range for the PolyBlend 1100 product lines; these properties can be tailored to meet specific values based on customer requirements.

BIOCOMPATIBILITY TESTING

	ISO TESTED:
MEM Elution	Meets ISO 10993-5 guidelines
AGAR Overlay	Meets ISO 10993-5 guidelines
Phthalate Free	Does not contain or come in contact with DEHP
Animal-Free Origin Certified	BSE/TSE free

Pre-Processing Recommendations:

PolyBlend 1100 processing can be optimized by drying to a moisture content equal to or less than 0.05% by weight prior to melt processing.

Typically, the pellets must be dried for 3-4 hours with a dryer inlet air temperature of 180°F +/- 20°F. We recommend a machine-mounted desiccant-type hopper dryer, capable of reaching and maintaining a dew point of -40°F. If dry times are in excess of 8-10 hours, a hopper dryer temperature of 120-150°F is usually sufficient to achieve optimal moisture content.

FDA Master Files It is the responsibility of the user to establish safety with the FDA for their specific medical device.

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