

ChronoThane P™

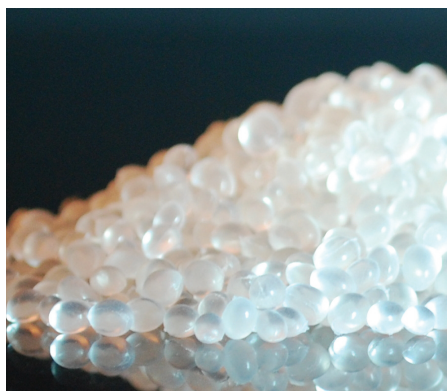
Robust and Resilient: High performance with superior adaptability.

Description

ChronoThane P is a family of aromatic ether based polyurethane elastomers. With a long history of reliable performance, this medical grade polymer has the versatility to be used across a broad range of applicational areas including catheters, ports and access devices.

These biocompatible materials possess characteristics such as low coefficient of friction, low extractables, dimensional stability, high impact resistance, and excellent tear strength.

ChronoThane P allows for ease of manufacturability and can be processed using conventional extrusion or injection molding equipment. These materials are available in hardnesses ranging from 75 Shore A to 75 Shore D.



CHRONOTHANE P 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 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 biodeurability 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

DIMENSIONAL STABILITY

AVAILABLE IN ANTIMICROBIAL FORM

TAILORED TO MEET MECHANICAL SPECIFICATIONS

CONSISTENT ELASTOMERIC PERFORMANCE

AVAILABLE IN RADIOPAQUE FORM

AVAILABLE IN SOLUTION FORM

EXCELLENT TEAR STRENGTH

NON CYTOTOXIC

HIGH IMPACT RESISTANCE

LOW EXTRACTABLES

LOW COEFFICIENT OF FRICTION

USP CLASS VI

BIOCOMPATIBLE

ANIMAL-FREE ORIGIN CERTIFIED

AdvanSource
biomaterials

Creating Technology. Enabling Success.



TYPICAL MECHANICAL CHARACTERISTIC RANGES

ChronoThane P

		ASTM Standard
Durometer Range Available	75 Shore A – 75 Shore D	D2240
Water Absorption	1.17 – 1.37%	D570
Melt Flow	2 – 26 g/10 min 190° – 205° C/3.26 kg	D1238

MECHANICAL PROPERTY RANGES (EXAMPLE RANGES SHOWN)*

Durometer	80A	55D	
Ultimate Tensile Strength (psi)	4000 – 7000	5000 – 8000	D638
Tensile (psi)			
@ 50% elongation	650 – 850	3000 – 3500	D638
@ 100% elongation	800 – 1000	3400 – 3800	D638
@200% elongation	1200 – 1400	4000 – 4700	D638
@ 300% elongation	1650 – 2000	5000 – 5600	D638
Ultimate Elongation (%)	680 – 850	300 – 500	D638

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

BIOCOMPATIBILITY TESTING

	USP CLASS VI TESTED:	ISO TESTED:
MEM Elution		Meets ISO 10993-5 guidelines
AGAR Overlay		Meets ISO 10993-5 guidelines
Systemic Injection Test	Meets Class VI guidelines	
Intracutaneous Injection Test	Meets Class VI guidelines	
Intramuscular Implantation (macro)	Meets Class VI guidelines	
Phthalate Free		Does not contain or come in contact with DEHP
Animal-Free Origin Certified		BSE/TSE free

Pre-Processing Recommendations:

ChronoThane P 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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