

Elasthane™ 80A

Thermoplastic Polyurethane Elastomer (Polyether)

DSM Biomedical Inc.

Message:

Elasthane™ 80A is a Thermoplastic Polyurethane Elastomer (Polyether) (TPU-Polyether) product. It can be processed by extrusion and is available in North America. Applications of Elasthane™ 80A include medical/healthcare and food contact applications.

Characteristics include:

Biocompatible

High Strength

Hydrolytically Stable

General Information			
Features	Aromatic Biocompatible High Strength Hydrolytically Stable		
Uses	Medical/Healthcare Applications		
Agency Ratings	DMF Unspecified Rating FDA Unspecified Rating		
Appearance	Clear Amber		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.12	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (224°C/1.2 kg)	17	g/10 min	ASTM D1238
Molding Shrinkage - Flow			ASTM D955
-- ¹	4.5	%	
-- ²	0.0 to 2.0	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	82		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Ultimate)	43.8	MPa	ASTM D1708
Tensile Stress			ASTM D1708
50% Strain	9.51	MPa	
100% Strain	5.83	MPa	
300% Strain	3.63	MPa	
Tensile Elongation (Break)	600	%	ASTM D1708
Flexural Modulus - 1% Secant	36.0	MPa	ASTM D790
Flexural Strength (5.0% Strain)	1.55	MPa	ASTM D790
Elastomers	Nominal Value	Unit	Test Method

Compression Set (25°C, 22 hr)	23	%	ASTM D395
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	100	°C	ASTM D1525
CLTE - Flow	1.8E-4	cm/cm/°C	ASTM E831
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength	14	kV/mm	ASTM D149
Dielectric Constant (60 Hz)	6.70		ASTM D150
Extrusion	Nominal Value	Unit	
Melt Temperature	171 to 193	°C	
NOTE			
1.	4 in disk		
2.	Flame bar		

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