Bionate® II 80A

Polycarbonate + TPU

DSM Biomedical Inc.

Message:

Bionate® II 80A is a Polycarbonate + TPU (PC+TPU) product. It can be processed by extrusion or injection molding and is available in North America. Applications of Bionate® II 80A include medical/healthcare and food contact applications.
Characteristics include:
Good Mold Release
Good Toughness
High Strength
Wear Resistant

General Information	
Features	Aromatic
	Good Abrasion Resistance
	Good Mold Release
	Good Toughness
	High Strength
	Oxidation Resistant
Uses	Medical/Healthcare Applications
Agency Ratings	DMF Unspecified Rating
	FDA Unspecified Rating
Appearance	Clear Amber
Forms	Pellets
Processing Method	Extrusion
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) [1]	23	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.24 to 3.9	%	ASTM D955
Water Absorption (Saturation)	0.74	%	ASTM D750
Average Molecular Weight	258000	Mw	Internal Method
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A)	84		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break)	54.9	MPa	ASTM D1708
Tensile Stress			ASTM D1708
50% Strain	4.11	MPa	
100% Strain	5.87	MPa	

300% Strain	24.2	MPa	
Tensile Elongation (Break)	500	%	ASTM D1708
Flexural Modulus - 1% Secant	19.2	MPa	ASTM D790
Flexural Strength (5.0% Strain)	0.945	MPa	ASTM D790
Coefficient of Friction (vs. Itself - Dynamic)	0.41		ASTM D1894
Elastomers	Nominal Value	Unit	Test Method
Tear Strength [2]	64.8	kN/m	ASTM D624
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-8.00	°C	ASTM E1356
Vicat Softening Temperature	82.5	°C	ASTM D1525
Melting Temperature	162	°C	ASTM E1356
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength	17	kV/mm	ASTM D149
Dielectric Constant (60 Hz)	4.16		ASTM D150
Injection	Nominal Value	Unit	
Processing (Melt) Temp	191 to 218	°C	
Extrusion	Nominal Value	Unit	
Melt Temperature	177 to 210	°C	
NOTE			
1.	224°C		
2.	Die C		

Recommended distributors for this material

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