

# InnoGreen® BIO-80D

Polyurethane Thermoset Elastomer

Innovative Polymers, Inc.

Message:

InnoGreen® BIO-80D is a 80 shore D polyurethane elastomer formulated for hand-batch and vacuum assisted processing. Excellent physical properties can be obtained with a room temperature cure without the utilization of mercury, MOCA or TDI InnoGreen® BIO-80D has been approved by the USDA as a bio preferred product.

General Information			
Features	Renewable Resource Content		
Agency Ratings	USDA Certified Biobased Product		
RoHS Compliance	RoHS Compliant		
Appearance	Tan		
Processing Method	Vacuum Casting		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
Hardener	1.03	g/cm <sup>3</sup>	
Cured	1.14	g/cm <sup>3</sup>	
Base Resin	1.20	g/cm <sup>3</sup>	
Molding Shrinkage - Flow	0.20 to 0.50	%	ASTM D2566
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus	1380	MPa	ASTM D790
Flexural Strength	55.2	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	48	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	65.0	°C	ASTM D648
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
	Mix Ratio by Volume: 100		
Hardener	Mix Ratio by Weight: 100		
	Mix Ratio by Weight: 80		
Resin	Mix Ratio by Volume: 86		
Demold Time	120 to 240	min	
Additional Information	Nominal Value	Unit	Test Method

Biobased Content	39	%	
Uncured Properties	Nominal Value	Unit	Test Method
Viscosity			
25°C <sup>1</sup>	0.075	Pa·s	
25°C <sup>2</sup>	0.53	Pa·s	
25°C <sup>3</sup>	2.8	Pa·s	
Curing Time <sup>4</sup>	26	hr	
Gel Time	5.0 to 9.0	min	
Cured Properties	Nominal Value	Unit	Test Method
Shore Hardness (Shore D)	75 to 85		ASTM D2240
Tensile Strength	32.1	MPa	ASTM D638
Tensile Elongation at Break	30	%	ASTM D638
NOTE			
1.	Resin		
2.	Mixed		
3.	Hardener		
4.	24 hours at 77°F + 2 hours at 150°F		

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#### Recommended distributors for this material

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