

# Pearlthane® ECO D12T80

Thermoplastic Polyurethane Elastomer

Lubrizol Advanced Materials, Inc.

## Message:

Type : Pearlthane® ECO D12T80 is a high performance bio-based thermoplastic polyurethane. With ca. 42% bio-based content.

Main Application : Injection Moulding

Special Features : Properties similar to standard TPU of same hardness, excellent mechanical properties and abrasion resistance.

General Information			
Features	Good Abrasion Resistance		
	Renewable Resource Content		
Uses	Sporting Goods		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.10	g/cm <sup>3</sup>	ISO 2781
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A, 1 sec)	82		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (500 mm)	33.0	MPa	ISO 527-2/5A
Tensile Strain (Break, 500 mm)	600	%	ISO 527-2/5A
Abrasion Resistance	20.0	mm <sup>3</sup>	ISO 4649-A
Biobased Content	42	%	ASTM D6866
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>1</sup>			ISO 527-2
100% Strain, 500 mm	4.00	MPa	
300% Strain, 500 mm	9.00	MPa	
Tear Strength <sup>2</sup>	84	kN/m	ISO 34-1
Injection	Nominal Value	Unit	
Drying Temperature	100	°C	
Drying Time	3.0	hr	
Rear Temperature	190	°C	
Middle Temperature	200	°C	
Front Temperature	200	°C	
Nozzle Temperature	210	°C	
Mold Temperature	40.0	°C	
NOTE			
1.	Type 5		

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#### Recommended distributors for this material

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