

## Lubrizol Advanced Materials Pearlthane® ECO D12T85 Thermoplastic Polyurethane

Category : Polymer , Renewable/Recycled Polymer , Thermoplastic , Polyurethane, TP

### Material Notes:

Pearlthane® ECO D12T85 is a 85 Shore A, High Performance natural TPU based on Renewable Sources with ca. 46% renewable content according to ASTM D6866 for Injection Moulding applications. This natural TPU resin features properties similar to standard TPU of same hardness (i.e. excellent mechanical properties and abrasion resistance). Pearlthane® ECO D12T85 enhances the performance of a wide range of end use products that ranges from automotive, consumer electronics and sport and leisure applications among others where environmentally friendly materials can bring value to the end product.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lubrizol-Advanced-Materials-Pearlthane-ECO-D12T85-Thermoplastic-Polyurethane.php](http://www.lookpolymers.com/polymer_Lubrizol-Advanced-Materials-Pearlthane-ECO-D12T85-Thermoplastic-Polyurethane.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.15 g/cc	1.15 g/cc	ASTM D-792
Moisture Absorption at Equilibrium	<= 0.10 %	<= 0.10 %	MQSA 44
Melt Flow	10 g/10 min @Load 21.6 kg, Temperature 175 - 185 °C	10 g/10 min @Load 47.6 lb, Temperature 347 - 365 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	85	85	ASTM D-2240
Tensile Strength	35.00 MPa	5076 psi	ASTM D-412
Tensile Strength, Yield	5.998 MPa @Strain 100 %	870.0 psi @Strain 100 %	ASTM D-412
	22.00 MPa @Strain 300 %	3191 psi @Strain 300 %	ASTM D-412
Elongation at Break	400 %	400 %	ASTM D-412
Abrasion	20	20	mm<sup>3</sup> Loss; DIN 53.516

Thermal Properties	Metric	English	Comments
Melting Point	190 - 200 °C	374 - 392 °F	Temperature range at which MFI = 10 g/10 min at 21.6 kg.; MQSA 111
Glass Transition Temp, Tg	-38.9 °C	-38.0 °F	DSC, 50° F/10min; DIN 51.007

Processing Properties	Metric	English	Comments
Feed Temperature	195 Å°C	383 Å°F	
Nozzle Temperature	210 Å°C	410 Å°F	
Mold Temperature	35.0 Å°C	95.0 Å°F	

Descriptive Properties	Value	Comments
Biobased Content (%)	44	ASTM D-6866
Compression Zone Temperature	385Å°F	
Metering Zone Temperature	390Å°F	

## Contact Songhan Plastic Technology Co.,Ltd.

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