

Technical Data Sheet

Type: Pearlthane™ ECO 12T85 is a high-performance bio-based thermoplastic polyurethane. With Ca 46% bio-based content.

Main application: Injection Molding

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

Physical Properties	Value (Metric)	Unit	Test Method
Hardness	A/3: 85	Shore A/D	ISO 868
Specific Gravity	1.15	g/cm ³	ISO 2781
Tensile Strength	40	MPa	ISO 527-2/5A/200
Ultimate Elongation	440	%	ISO 527-2/5A/200
Tensile Stress at:			
- 100 % Elongation	6	MPa	ISO 527-2/5A/200
- 300 % Elongation	20	MPa	ISO 527-2/5A/200
Tear Strength nicked	-	kN/m	ISO 34-1B
Abrasion Resistance	30	mm ³	ISO 4649-A

* Based on moulded plaques

Listed values are “typical (average) values” and should /cannot be applied for specification purposes

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Material Preparation

Prior to processing, **Pearlthane™ ECO 12T85** must be dried at **80°C** during 2 hours. It is recommended to dry the material in a dehumidifying type dryer. Target dew point should be -30°C, preferably -40°C.

Recommended Injection Moulding Temperature Profile:

	°C
Feed zone	40
Zone 1	195
Zone 2	200
Zone 3	210
Zone 4	210
Nozzle	210

For further information refer to Lubrizol Advanced Materials processing guides.

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