

Technical Data Sheet

Type: Pearlthane® ECO D12T80E is a high-performance bio-based thermoplastic polyurethane. With Ca 42% bio-based content. Properties similar to standard TPU of same hardness, excellent mechanical properties and abrasion resistance.

Main application: Extrusion/Injection Molding

Physical Properties	Value (Metric)	Unit	Test Method
Hardness	A/1: 82	Shore A/D	ISO 868
Specific Gravity	1.10	g/cm ³	ISO 2781
Tensile Strength	33	MPa	ISO 527-2/5A/500
Ultimate Elongation	604	%	ISO 527-2/5A/500
Tensile Stress at:			
- 100 % Elongation	4	MPa	ISO 527-2/5A/500
- 300 % Elongation	9	MPa	ISO 527-2/5A/500
Tear Strength nicked	74	kN/m	ISO 34-1B
Abrasion Resistance	20	mm ³	ISO 4649-A
Vicat Softening Point	84	°C	ISO 306 (A50)

* Based on extruded strips

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 D12T80E** be dried at **100°C** for 3-4 hours. It is recommended to dry the material in a dehumidifying type dryer. Target dew point should be **-40°C**.

Recommended Starting EXTRUSION/MOULDING Temperature Profile:

	°C
Hopper cooling	Yes
Zone 1	190
Zone 2	200
Zone 3	200
Zone 4	200
Adapter 5	200
Die (6)	200
Die Tip (7)	195

For further information refer to Lubrizol Advanced Materials processing guides.

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