

Technical Data Sheet

Type Pearlthane® ECO D12T90E is a high performance bio-based thermoplastic polyurethane. With Ca 37% bio-based content.

Main application: Extrusion/Injection Moulding

Physical Properties	Value (Metric)	Unit	Test Method
Hardness	A/1: 91	Shore A/D	ISO 868
Specific Gravity	1.15	g/cm ³	ISO 2781
Tensile Strength	39	MPa	ISO 527-2/5A/200
Ultimate Elongation	470	%	ISO 527-2/5A/200
Tensile Stress at:			
- 100 % Elongation	9	MPa	ISO 527-2/5A/200
- 300 % Elongation	25	MPa	ISO 527-2/5A/200
Tear Strength nicked	122	kN/m	ISO 34-1B
Abrasion Resistance	35	mm ³	ISO 4649-A
Vicat Softening Point	108	°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 D12T90E** be dried at **80°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 INJECTION MOULDING Temperature Profile:

	°C
Hopper cooling	Yes
Zone 1	190-210
Zone 2	195-205
Zone 3	200-210
Zone 4	200-210
Adapter 5	205-215
Die (6)	205
Die TIP (7)	200

For further information refer to Lubrizol Advanced Materials processing guides.

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