

Technical Data Sheet

Type: Pearlthane® ECO D12T90E is a high performance bio-based thermoplastic polyurethane.

With ca. 37% bio-based content.

Main Application: Extrusion

Special features: Very good flexibility at low temperatures and very good abrasion resistance.

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/500
Ultimate Elongation	470	%	ISO 527-2/5A/500
Tensile Stress at 50 % Elongation		MPa	ISO 527-2/5A/500
100 % Elongation	9	MPa	ISO 527-2/5A/500
300 % Elongation	25	MPa	ISO 527-2/5A/500
Tear Strength Unnicked	122	kN/m	ISO 34-1B
Abrasion Resistance	35	mm ³	ISO 4649-A
Vicat Softening Point		°C	ISO 306 (A50)

*Based on extruded strips.

Listed values are "typical (average) values" and should/can not be applied for specification purposes.

See reverse side for processing information

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Material Preparation

Prior to processing, Pearlthane® ECO D12T90E must be dried at 80°C during 3 hours.
 It is recommended to dry the material in a dehumidifying-type dryer.
 Target dew point to be below -30°C, preferably -40°C

Recommended Extrusion Temperature Profile:

	°C
Hopper cooling	Yes
Zone 1	190-200
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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