

Technical Data Sheet

Type: Pearlthane[™] ECO D12T80E is a high performance bio-based thermoplastic polyurethane.

With ca. 43% bio-based content

Main Application: Extrusion

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/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			
50 % Elongation		MPa	ISO 527-2/5A/500
100 % Elongation	4	MPa	ISO 527-2/5A/500
300 % Elongation	9	MPa	ISO 527-2/5A/500
Tear Strength Unnicked	84	kN/m	ISO 34-1B
Abrasion Resistance	20	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 purpose

See reverse side for processing information

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Material Preparation

Prior to processing, Pearlthane® ECO D12T80E must be dried at 100°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
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.

European version – Issue Date: 09/2015

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