

Technical Data Sheet

Type: Pearlthane® ECO D12T55D is a high performance-based thermoplastic polyurethane.

With ca. 29% bio-based content.

Main Application: Extrusion/Moulding

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

Physical Properties*	Value (Metric)	Unit	Test Method
Hardness	D/1 : 55	Shore A/D	ISO 868
Specific Gravity	1.18	g/cm ³	ISO 2781
Tensile Strength	43	MPa	ISO 527-2/5A/500
Ultimate Elongation	360	%	ISO 527-2/5A/500
Tensile Stress at			
50 % Elongation	15	MPa	ISO 527-2/5A/500
100 % Elongation	18	MPa	ISO 527-2/5A/500
300 % Elongation	37	MPa	ISO 527-2/5A/500
Tear Strength Unnicked	189	kN/m	ISO 34-1B
Abrasion Resistance	24	mm ³	ISO 4649-A
Vicat Softening Point	133	°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 D12T55D must be dried at 100°C during 2 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	200-210
Zone 2	205-215
Zone 3	210-220
Zone 4	215-225
Adapter 5	220-230
Die (6)	220-230
Die TIP (7)	220-230

For further information, refer to Lubrizol Advanced Materials processing guides.

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