

Technical Data Sheet

Type: ESTANE® ECO 12T55D is a high-performance bio-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/200
Ultimate Elongation	360	%	ISO 527-2/5A/200
Tensile Stress at:			
- 50 % Elongation	15	MPa	ISO 527-2/5A/200
- 100 % Elongation	18	MPa	ISO 527-2/5A/200
- 300 % Elongation	37	MPa	ISO 527-2/5A/200
Tear Strenght 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 /cannot be applied for specification purposes

See reverse side for processing information

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Material Preparation

- Prior to processing, **PEARLTHANE™ ECO 12T55D** must be dried at 100°C (212°F) for 1-2 hours.
- It is recommended to dry the material in a dehumidifying type dryer.
- Target dew point should be -40°C.

Recommended Extrusion Temperature Profile:

	°C
Hooper 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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