

Technical Data Sheet

Type: ESTANE[®] ECO 16T85 is a 85 shore A bio-based polyether Thermoplastic Polyurethane (TPU).

Features: Good transparency and UV stabilized clear TPU.

Uses: Injection molding

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	85 +/-3	Shore A	ISO868
Specific Gravity	1.14	g/cm ³	ASTM D-792
Tensile Strength	32	Mpa	ASTM D-412
Ultimate Elongation	614	%	ASTM D-412
Tensile Stress at:			
- 100 % Elongation	6	Mpa	ASTM D-412
- 300 % Elongation	10	Mpa	ASTM D-412
Tear Strength			
Graves	101	KN/m	ASTM D-624
Abrasion	70	mm ³	ISO4649
Biobased content	25	%	ASTM D6866-21 Method B

Remark:

- Based on 2mm injection part.
- Prior to testing samples were conditioned at 23°C for 48 hours.
- Listed values are "typical (average) values" and should/cannot be applied for specification purposes.

Supply Form and Standard Packaging

- ESTANE[®] ECO 16T85 is supplied in pellet form and packaged in 25 Kgs bags.

Material Preparation

- Prior to processing, ESTANE[®] ECO 16T85 must be dried at 100°C for 4-6 hours.
- It is recommended to dry the material in a desiccant type dryer. Target dew point should be -40°C.
- The maximum appropriate moisture rate for injection molding is 0.05% (500ppm).

Material Preparation

- ESTANE[®] ECO 16T85 can be used in a normal injection molding machine.

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Recommended Starting INJECTION MOLDING Temperature Profile:

	°C
Feed zone	40
Zone 1	190
Zone 2	200
Zone 3	205
Zone 4	205
Nozzle	205

** Successful processing of Lubrizol TPUs by injection molding is very dependent upon a wide range of variables such as machine size, shot size, screw geometry and mold design. Due to these factors, exact machine conditions for optimum processing have to be determined by processor for the system chosen.*

For further information refer to Lubrizol Advanced Materials processing guides or access to Lubrizol local technical service team for further discussions.

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