

Technical Data Sheet

Type: Pearlthane® ECO 12T95 is a high performance bio-based thermoplastic polyurethane.

With ca. 32% bio-based content.

Main Application: Injection Moulding

Special Features: Excellent mechanical properties and abrasion resistance.

Physical Properties*	Value (Metric)	Unit	Test Method
Hardness	A/1 : 95	Shore A/D	ISO 868
Specific Gravity	1.17	g/cm ³	ISO 2781
Tensile Strength	36	MPa	ISO 527-2/5A/500
Ultimate Elongation	415	%	ISO 527-2/5A/500
Tensile Stress at			
50 % Elongation	10	MPa	ISO 527-2/5A/500
100 % Elongation	12	MPa	ISO 527-2/5A/500
300 % Elongation	28	MPa	ISO 527-2/5A/500
Tear Strength Unnicked	142	kN/m	ISO 34-1B
Abrasion Resistance	28	mm ³	ISO 4649-A
Compression Set			
22h @ 100°C		%	ASTM D395B
70h @ 70°C		%	ASTM D395B
22h @ 70°C		%	ASTM D395B
Vicat Softening Point	107	°C	ISO 306 (A50)

*Based on moulded plaques.

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

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Material Preparation

Prior to processing, Pearlthane® ECO 12T95 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 Injection Moulding Temperature Profile:

	°C
Feed zone	40
Zone 1	200-210
Zone 2	205-215
Zone 3	210-220
Zone 4	210-220
Nozzle	215-225

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

European version – Issue Date: 09/2015

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