

Technical Data Sheet

Type: Pearlthane™ 11T75D is a polycaprolactone co-polyester-based thermoplastic polyurethane.

Main application: Injection Moulding

Uses:

Physical Properties	Value (Metric)	Unit	Test Method
Specific Gravity	1.22	g/cm ³	ISO 1183
Mold Shrinkage	0.2	%	ASTM D 955
Water absorption, 24-23°C	0.21	%	ASTM D 570
Hardness	D/1:80	Shore A/D	ISO 868
Flexural Strength	81	MPa	ISO 178
Flexural Modulus	2270	MPa	ISO 178
E-Modulus	2170	MPa	ISO 527-2/1A/5
Tensile Strength at Yield	60	MPa	ISO 527-2/1A/5
Tensile Strength at Break	50	MPa	ISO 527-2/1A/5
Elongation at Yield	6	%	ISO 527-2/1A/5
Elongation at Break	230	%	ISO 527-2/1A/5
Izod Impact Strength			
- Notched, 23°C	10	KJ/m ²	ISO 180/1 A
- Notched, -30°C	4	KJ/m ²	ISO 180/1 A
Glass Transition Temperature	39	°C	DSC
Heat Deflection Temperature HDT			
- Method A (1.80 MPa)	46	°C	ISO 75 (e)
- Method B (0.45 MPa)	49	°C	ISO 75 (e)
Vicat Softening Point	59	°C	ISO 360 (A50)

See reverse side for processing information

Listed values are “typical (average) values” and should /cannot be applied for specification purposes

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Material Preparation

Prior to processing, **Pearlthane™ 11T75D** be dried at **100°C** for 3-4 hours. It is recommended to dry the material in a dehumidifying type dryer. Target dew point should be **-40°C**.

Recommended Starting INJECTION MOULDING Temperature Profile:

	°C
Hopper cooling	Yes
Zone 1	215
Zone 2	220
Zone 3	225
Zone 4	225
Adapter (5)	225
Die (6)	225
Die TIP (7)	225

For further information refer to Lubrizol Advanced Materials processing guides.

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