

Pearlthane® 11T85

Thermoplastic Polyurethane Elastomer (Polycaprolactone)

Lubrizol Advanced Materials, Inc.

Message:

Aromatic Polycaprolactone Copolyester based Thermoplastic polyurethane

Appearance: Colourless pellets

Features: Medium hardness, excellent mechanical properties and easy processing.

Application: Injection-moulding applications.

General Information			
Features	Workability, good		
	Medium hardness		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Translucent		
	Colorless		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.16	g/cm ³	ASTM D792
20°C	1.16	g/cm ³	ISO 2781
Moisture Content		%	Internal method
Abrasion Loss	20.0	mm ³	ISO 4649
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	85		ASTM D2240, ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 527
100% strain	6.00	MPa	ASTM D412, ISO 527
300% strain	10.0	MPa	ASTM D412, ISO 527
Tensile Strength (Yield)	40.0	MPa	ASTM D412, ISO 527
Tensile Elongation (Break)	640	%	ASTM D412, ISO 527
Tear Strength			
-- ¹	90.0	kN/m	ASTM D624
--	90	kN/m	ISO 34-1
Compression Set			ASTM D395B
23°C, 70 hr	25	%	ASTM D395B
70°C, 22 hr	35	%	ASTM D395B
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature ²	-45.0	°C	ISO 11357-2

Melting Temperature ³	178 - 188	°C	Internal method
Injection	Nominal Value	Unit	
Rear Temperature	195	°C	
Middle Temperature	200	°C	
Front Temperature	210	°C	
Nozzle Temperature	210	°C	
Mold Temperature	35.0	°C	
Injection instructions			
Clamping force: 50 tonsScrew diameter: 30 mmL/D ration: 23Maximum hydraulic pressure: 210 barMould: Plaque 120x120x2 mm			
NOTE			
1.	C mould		
2.	10°C /min		
3.	Temperature at which MFI = 10 g/10 min @ 21.6 kg		

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