

Pearlthane® 12C75

Thermoplastic Polyurethane Elastomer (Polyester)

Lubrizol Advanced Materials, Inc.

Message:

Pearlthane® 12C75 is a standard polyester based TPU supplied in form of translucent, colourless pellets, specially designed for compounds in which TPU is used as an additive. Features include low softness without plasticizer and a low melting point

Pearlthane® 12C75 is intended for compounding applications of a variety engineering plastic. Please contact our technical service department for detailed information.

General Information			
Features	Low speed solidification crystal point		
	Heat resistance, medium		
Uses	Composite		
	Engineering application		
Appearance	Translucent		
	Colorless		
Forms	Particle		
Processing Method	Composite		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
-- ¹	1.20	g/cm ³	ASTM D792
20°C	1.20	g/cm ³	ISO 2781
Moisture Content		%	Internal method
Abrasion Loss	25.0	mm ³	ISO 4649
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	78		ASTM D2240, ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 527
100% strain	4.00	MPa	ASTM D412, ISO 527
300% strain	5.50	MPa	ASTM D412, ISO 527
Tensile Strength (Yield)	20.0	MPa	ASTM D412, ISO 527
Tensile Elongation (Break)	750	%	ASTM D412, ISO 527
Tear Strength			
-- ²	70.0	kN/m	ASTM D624
-- ³	70	kN/m	ISO 34-1
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature ⁴	-32.0	°C	ISO 11357-2
Melting Temperature ⁵	125 - 135	°C	Internal method

Extrusion	Nominal Value	Unit
Drying Temperature	90.0 - 100	°C
Drying Time	1.0 - 2.0	hr
Cylinder Zone 1 Temp.	120 - 130	°C
Cylinder Zone 2 Temp.	130 - 140	°C
Cylinder Zone 3 Temp.	140 - 150	°C
Cylinder Zone 4 Temp.	145 - 155	°C
Die Temperature	145 - 155	°C

Extrusion instructions

Type: 30/25d (l/d = 25:1), Cooling: Air, Screw: 3:1, Speed: 50 rpm, Thickness Die: 0,2 mm, Pre-heating: 1h @ 100 °C (212 °F).

NOTE

1. 20°C
2. C mould
3. Method B
4. 10°C/min
5. Temperature at which MFI = 10
g/10 min @ 21.6 kg

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Recommended distributors for this material

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