

Pearlthane® MAXI 12T85E

Thermoplastic Polyurethane Elastomer (Polyester)

Lubrizol Advanced Materials, Inc.

Message:

PEARLTHANE® MAXI 12T85E is a polyester based TPU, supplied in form of transparent, colourless pellets, featuring medium hardness, good mechanical properties and outstanding abrasion resistance. This grade is intended for extrusion applications.

Applications:

PEARLTHANE® MAXI D12T85E can be mainly used for making extruded profiles, hoses and films.

General Information			
Features	Good wear resistance		
	Medium hardness		
Uses	Films		
	Pipe		
	Profile		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Clear/transparent		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.21	g/cm ³	ASTM D792
20°C	1.21	g/cm ³	ISO 2781
Moisture Content		%	Internal method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	86		ASTM D2240, ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 527
100% strain	5.90	MPa	ASTM D412, ISO 527
300% strain	10.2	MPa	ASTM D412, ISO 527
Tensile Strength (Yield)	42.0	MPa	ASTM D412, ISO 527
Tensile Elongation (Break)	580	%	ASTM D412, ISO 527
Tear Strength			
-- ¹	108	kN/m	ASTM D624
-- ²	110	kN/m	ISO 34-1
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature ³	-45.0	°C	ISO 11357-2
Melting Temperature ⁴	180 - 190	°C	Internal method
Extrusion	Nominal Value	Unit	

Drying Temperature	100 - 110	°C
Drying Time	1.0 - 2.0	hr
Cylinder Zone 1 Temp.	175 - 195	°C
Cylinder Zone 2 Temp.	185 - 205	°C
Cylinder Zone 3 Temp.	195 - 215	°C
Cylinder Zone 4 Temp.	190 - 225	°C
Die Temperature	185 - 195	°C

Extrusion instructions

L/D Ratio: 25:1 to 30:1Screw Compression Ratio: 2:1 to 3:1Screw Speed: 12 to 60 rpm

NOTE

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

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

