

Estane® 58277 TPU

Thermoplastic Polyurethane Elastomer (Polyester)

Lubrizol Advanced Materials, Inc.

Message:

Type: Polyester Thermoplastic Polyurethane (TPU)
Special Feature: Excellent Physical Properties with Good Chemical Resistance and a Wide Processing Window
Processes: Extrusion: Blown, Flat Die Cast Film, Injection and Cable Jacketing

General Information			
Features	Workability, good		
	Good chemical resistance		
Uses	Blown Film		
	Cable sheath		
	Wire and cable applications		
	cast film		
Agency Ratings	FDA 21 CFR 177.1680		
	FDA 21 CFR 177.2600		
RoHS Compliance	RoHS compliance		
Forms	Particle		
Processing Method	Blow film		
	Wire & Cable Extrusion		
	Extrusion		
	cast film		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.22	g/cm ³	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	92		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance (1000 Cycles, 1000 g, H-18 Wheel)	37.0	mg	ASTM D3389
Elastomers	Nominal Value	Unit	Test Method
Tensile Set (200% Strain)	20	%	ASTM D412
Tensile Stress			ASTM D412
100% strain, 0.762mm	9.70	MPa	ASTM D412
300% strain, 0.762mm	29.0	MPa	ASTM D412
Tensile Strength (Break, 0.762 mm)	62.1	MPa	ASTM D412

Tensile Elongation (Break, 0.762 mm)	450	%	ASTM D412
Tear Strength			
0.762 mm ¹	114	kN/m	ASTM D624
Cracking	33	kN/m	ASTM D470
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-20.0	°C	ASTM D3418
Melting Temperature	130	°C	DSC
Kofler Melting Temperature	140	°C	Internal method
Optical	Nominal Value	Unit	Test Method
Haze ² (1650 μm)	1.1	%	ASTM D1003
Extrusion	Nominal Value	Unit	
Drying Temperature	104	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.020	%	
Cylinder Zone 1 Temp.	177	°C	
Cylinder Zone 2 Temp.	182	°C	
Cylinder Zone 3 Temp.	188	°C	
Cylinder Zone 4 Temp.	193	°C	
Adapter Temperature	199	°C	
Melt Temperature	185	°C	
Die Temperature	199	°C	
Extrusion instructions			
Screens: 20-40-80 meshDew Point: -40°C			
NOTE			
1.	C mould		
2.	between glass		

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