



Estane® 91F57D EXP

Lubrizol Advanced Materials, Inc. - Thermoplastic Polyurethane Elastomer (Polycaprolactone)

Tuesday, November 5, 2019

General Information

Product Description

Type: Aliphatic polycaprolactone based Thermoplastic Polyurethane (TPU) with a 57 Shore D Hardness.

Features: Clear resin with excellent colour stability upon UV exposure.

Uses: Cast film extrusion, profile extrusion and molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Aliphatic	• Good Color Stability	• UV Resistant
Uses	• Cast Film	• Profiles	
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Cast Film	• Injection Molding	• Profile Extrusion

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.15	g/cm ³	ISO 2781
Melt Mass-Flow Rate (MFR) (185°C/2.16 kg)	1.0 to 20	g/10 min	ISO 1133
Moisture Content	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527-2
--	8700 to 9430	psi	
100% Strain	1890 to 2180	psi	
300% Strain	5800 to 6240	psi	
Tensile Strain (Break)	380 to 430	%	ISO 527-2
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 3 sec)	57		ISO 868

Processing Information

Extrusion	Nominal Value	Unit
Drying Temperature	140	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Cylinder Zone 1 Temp.	329 to 347	°F
Cylinder Zone 2 Temp.	374 to 392	°F
Cylinder Zone 3 Temp.	374 to 392	°F
Cylinder Zone 4 Temp.	392 to 410	°F
Adapter Temperature	392 to 410	°F
Die Temperature	383 to 419	°F

Notes

¹ Typical properties: these are not to be construed as specifications.