



Estane® 58863 TPU

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

Wednesday, November 6, 2019

General Information

Product Description

Type: Estane® 58863 TPU is an 85A Polyether-Type Thermoplastic Polyurethane.

Features: Good Elasticity - High melt flow for easy processing

Uses: Extrusion - Wire and cable, general extrusion

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Processability	• High Flow	
Uses	• Wire & Cable Applications		
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Extrusion	• Wire & Cable Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.12		ASTM D792
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus (73°F)	5940	psi	ASTM D790
Taber Abrasion Resistance 1000 Cycles, 1000 g, CS-17 Wheel	4.50	mg	ASTM D3389
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain, 0.0300 in)	1000	psi	ASTM D412
Tensile Stress (300% Strain, 0.0300 in)	1600	psi	ASTM D412
Tensile Strength (Break, 0.0300 in)	5900	psi	ASTM D412
Tensile Elongation (Break, 0.0300 in)	600	%	ASTM D412
Tear Strength ² (0.0300 in)	381	lbf/in	ASTM D624
Tear Strength (Split)	130	lbf/in	ASTM D470
Compression Set 73°F, 22 hr 158°F, 22 hr	20 66	% %	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 5 sec)	82 to 88		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-58.0	°F	DSC

Processing Information

Extrusion	Nominal Value	Unit
Drying Temperature	219	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%

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Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	345	°F
Cylinder Zone 2 Temp.	356	°F
Cylinder Zone 3 Temp.	370	°F
Cylinder Zone 4 Temp.	381	°F
Adapter Temperature	381	°F
Melt Temperature	378	°F
Die Temperature	365 to 376	°F

Extrusion Notes
Dew Point: -40°C
Screen Pack Recommendation: 20/40/80/20

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² Die C