Estane® 58881 TPU

Wednesday, November 6, 2019

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

General Information

Product Description

Type: Estane® 58881 TPU is an 80A Polyether-Type Thermoplastic Polyurethane.

Features: Excellent low temperature flexibility, and superior abrasion and cut resistance

Uses: Extrusion - Wire and cable, Hose and tube & General purpose

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant	• Vibration Damping	
Uses	• General Purpose • Hose	• Tubing • Wire & Cable Applications	
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Extrusion	• Filament Winding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.13		ASTM D792
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Flexural Modulus (73°F)	2480	psi	ASTM D790
Taber Abrasion Resistance			ASTM D3389
1000 Cycles, 1000 g, CS-17 Wheel	3.00	mg	
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain, 0.0300 in)	696	psi	ASTM D412
Tensile Stress (300% Strain, 0.0300 in)	986	psi	ASTM D412
Tensile Strength (Break, 0.0300 in)	3390	psi	ASTM D412
Tensile Elongation (Break, 0.0300 in)	710	%	ASTM D412
Tear Strength [2] (0.0300 in)	314	lbf/in	ASTM D624
Tear Strength (Split)	100	lbf/in	ASTM D470
Compression Set			ASTM D395
73°F, 22 hr	18	%	
158°F, 22 hr	61	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A, 5 sec)	77 to 83		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	-61.6	°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.	351	°F
Cylinder Zone 2 Temp.	360	°F
Cylinder Zone 3 Temp.	370	°F
Cylinder Zone 4 Temp.	376	°F
Adapter Temperature	376	°F
Die Temperature	365 to 376	°F

Extrusion Notes

Dew Point: -40°C

Notes

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

[2] Die C