

Estane® MVT 75AT3 TPU

Thermoplastic Polyurethane Elastomer (Polyether)

Lubrizol Advanced Materials, Inc.

Message:

Type: Estane® MVT 75AT3 is a 75A aromatic Polyether-Based Thermoplastic Polyurethane (TPU)

Features:

High moisture vapor transmission with low water swell

Excellent low temperature properties and elasticity

Process:

Primary Use: Blown and flat die/cast film extrusion.

Secondary Use: Injection molding and cable jacketing.

General Information			
Features	High Moisture Vapor Transmission		
	Aroma		
Uses	Wire and cable applications		
Agency Ratings	FDA 21 CFR 177.1680		
	FDA 21 CFR 177.2600		
Forms	Particle		
Processing Method	Blow film		
	Extrusion		
	cast film		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.07	g/cm ³	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 5 sec)	72 - 78		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance (1000 Cycles, 1000 g, H-18 Wheel)	20.0	mg	ASTM D3389
Films	Nominal Value	Unit	Test Method
Water Vapor Transmission	400	g/m ² /24 hr	ASTM E96
Water Vapor Transmission - Mocon ¹ (38°C)	3000	g/m ² /24 hr	ASTM D6701
Kofler Melting Temperature	160	°C	Internal method
Elastomers	Nominal Value	Unit	Test Method
Tensile Set (200% Strain)	8	%	ASTM D412
Tensile Stress			ASTM D412
100% strain, 0.762mm	4.10	MPa	ASTM D412
300% strain, 0.762mm	6.20	MPa	ASTM D412

Tensile Strength (Break, 0.762 mm)	34.5	MPa	ASTM D412
Tensile Elongation (Break, 0.762 mm)	700	%	ASTM D412
Tear Strength			
0.762 mm ²	62.8	kN/m	ASTM D624
Cracking	20	kN/m	ASTM D470
Aging	Nominal Value	Unit	Test Method
Change in Volume (23°C, 24 hr, in water)	1.0	%	ASTM D471
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-68.0	°C	DSC
Melting Temperature	136	°C	DSC
Extrusion	Nominal Value	Unit	
Drying Temperature	82.0	°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	196	°C	
Die Temperature	199	°C	
Extrusion instructions			
Dew Point: -40°C Screen Pack Recommendation: 20/40/80			
NOTE			
1.	90% RH		
2.	C mould		

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