

Estane® ZHF 85AT8 MATT 01

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

Wednesday, November 6, 2019

General Information

Product Description

Type: ESTANE® ZHF85AT8 MATT 01 is a non halogen, flame retardant aromatic polyether-based thermoplastic polyurethane.

Application: Extrusion

General			
Material Status	Commercial: Active		
Availability	 Africa & Middle East Asia Pacific	EuropeLatin America	North America
Features	Aromatic	Flame Retardant	 Halogen Free
Appearance	Matte Finish		
Forms	• Pellets		
Processing Method	 Extrusion 		

Density	ASTM & ISO Properties 1					
Mechanical Nominal Value Unit Test Method Tensile Stress 7250 psi 50% Strain 725 psi 100% Strain 870 psi 300% Strain 1450 psi Tensile Strain (Break) 550 % ISO 527-2/5A/200 Abrasion Resistance 40.0 mm³ ISO 4649-A Elastomers Nominal Value Unit Test Method Tear Strength² Nominal Value Unit Test Method Shore Hardness (Shore A, 1 sec) 84 ISO 868 Thermal Nominal Value Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Flammability Nominal Value Unit Test Method Flammability Nominal Value Unit Test Method	Physical	Nominal Value	Unit	Test Method		
Tensile Stress ISO 527-2/5A/200 7250 psi 50% Strain 725 psi 100% Strain 870 psi 300% Strain 1450 psi Tensile Strain (Break) 550 % ISO 527-2/5A/200 Abrasion Resistance 40.0 mm³ ISO 4649-A Elastomers Nominal Value Unit Test Method Tear Strength² 314 lbf/in ISO 34-1 Idrances Nominal Value Unit Test Method Shore Hardness (Shore A, 1 sec) 84 ISO 868 Thermal Nominal Value Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Elammability Nominal Value Unit Test Method Flammability Nominal Value Unit Test Method Flammability Nominal Value Unit Test Method	Density	1.14	g/cm³	ISO 2781		
7250 psi 50% Strain 725 psi 100% Strain 870 psi 300% Strain 1450 psi Tensile Strain (Break) 550 % ISO 527-2/5A/200 Abrasion Resistance 40.0 mm³ ISO 4649-A Elastomers Nominal Value Unit Test Method Tear Strength² 314 Ibf/in ISO 34-1 Idardness Nominal Value Unit Test Method Shore Hardness (Shore A, 1 sec) 84 ISO 868 Thermal Nominal Value Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Flammability Nominal Value Unit Test Method Flame Rating V-2 UL 94	Mechanical	Nominal Value	Unit	Test Method		
50% Strain 725 psi 100% Strain 870 psi 300% Strain 1450 psi Tensile Strain (Break) 550 % ISO 527-2/5A/200 Abrasion Resistance 40.0 mm³ ISO 4649-A Elastomers Nominal Value Unit Test Method Tear Strength² 314 lbf/in ISO 34-1 Iso Bardness Nominal Value Unit Test Method Shore Hardness (Shore A, 1 sec) 84 ISO 868 Thermal Nominal Value Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Elammability Nominal Value Unit Test Method Flame Rating V-2 UL 94	Tensile Stress			ISO 527-2/5A/200		
100% Strain 870 psi 300% Strain 1450 psi Tensile Strain (Break) 550 % ISO 527-2/5A/200 Abrasion Resistance 40.0 mm³ ISO 4649-A Elastomers Nominal Value Unit Unit Test Method Tear Strength² 314 lb/in ISO 34-1 Isone Hardness (Shore A, 1 sec) 84 ISO 868 ISO 868 Thermal Nominal Value Unit Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Elammability Nominal Value Unit Test Method Flame Rating V-2 UL 94		7250	psi			
300% Strain 1450 psi Tensile Strain (Break) 550 % ISO 527-2/5A/200 Abrasion Resistance 40.0 mm³ ISO 4649-A Elastomers Nominal Value Unit Test Method Tear Strength² 314 lbf/in ISO 34-1 Iso 34-1 Iso 868 Iso 868 Internal Nominal Value Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Flammability Nominal Value Unit Test Method Flammability Nominal Value Unit Test Method	50% Strain	725	psi			
Tensile Strain (Break) Abrasion Resistance Abr	100% Strain	870	psi			
Abrasion Resistance 40.0 mm³ ISO 4649-A Elastomers Nominal Value Unit Test Method Tear Strength² 314 lbf/in ISO 34-1 Hardness Nominal Value Unit Test Method Shore Hardness (Shore A, 1 sec) 84 ISO 868 Thermal Nominal Value Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Flammability Nominal Value Unit Test Method Vicat Softening Temperature 172 °F USO 306 Flammability Unit Test Method Vicat Softening Value Unit Test Method Vicat Softening Value Unit Test Method Vicat Softening Value Unit Test Method	300% Strain	1450	psi			
Relastomers Rear Strength 2 Rear Strength 2 Rear Strength 3 Rear Strength 3 Rear Strength 4 Rear Strength 5 Rear Strength 5 Rear Strength 6 Rear Strength 7 Rear Strength 7 Rear Strength 7 Rear Strength 8 Rear Rear Rear Rear Rear Rear Rear Rear	Tensile Strain (Break)	550	%	ISO 527-2/5A/200		
Tear Strength 2 314 lbf/in ISO 34-1 Rardness Nominal Value Unit Test Method Shore Hardness (Shore A, 1 sec) 84 ISO 868 Thermal Nominal Value Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Rammability Nominal Value Unit Test Method Vicat Softening Temperature 172 °F USO 306 Rammability Unit Test Method Vicat Softening Value Unit Unit Test Method Unit Test Method Unit Unit Unit Unit Unit Unit Unit Unit	Abrasion Resistance	40.0	mm³	ISO 4649-A		
Nominal Value Unit Test Method Shore Hardness (Shore A, 1 sec)	Elastomers	Nominal Value	Unit	Test Method		
Shore Hardness (Shore A, 1 sec) Thermal Nominal Value Unit Test Method Vicat Softening Temperature 172 °F ISO 306 Flammability Nominal Value Unit Test Method V-2 UL 94	Tear Strength ²	314	lbf/in	ISO 34-1		
ThermalNominal ValueUnitTest MethodVicat Softening Temperature172°FISO 306FlammabilityNominal ValueUnitTest MethodFlame RatingV-2UL 94	Hardness	Nominal Value	Unit	Test Method		
Vicat Softening Temperature172 °FISO 306SlammabilityNominal ValueUnitTest MethodFlame RatingV-2UL 94	Shore Hardness (Shore A, 1 sec)	84		ISO 868		
Flame Rating Nominal Value Unit Test Method V-2 UL 94	Thermal	Nominal Value	Unit	Test Method		
Flame Rating V-2 UL 94	Vicat Softening Temperature	172	°F	ISO 306		
	Flammability	Nominal Value	Unit	Test Method		
Oxygen Index 24 % ASTM D2863	Flame Rating	V-2		UL 94		
	Oxygen Index	24	%	ASTM D2863		

Processing Information				
Extrusion	Nominal Value Unit			
Drying Temperature	176 °F			
Drying Time	3.0 to 4.0 hr			
Cylinder Zone 1 Temp.	392 °F			
Cylinder Zone 2 Temp.	383 °F			
Cylinder Zone 3 Temp.	374 °F			
Cylinder Zone 4 Temp.	365 °F			
Adapter Temperature	356 °F			



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Extrusion	Nominal Value Unit
Die Temperature	347 °F

Notes

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



² Method Bb, Angle (Nicked)