

Elastollan® 1185AW

Thermoplastic Polyurethane Elastomer (Polyether)

BASF Corp. Thermoplastic Polyurethanes

Message:

Elastollan® 1185AW is a polyether-based thermoplastic polyurethane (TPU) containing a plasticizer. It is specifically formulated for wire and cable, film and sheet, and extruded profile applications. It contains a non-halogenated flame retardant and is rated UL-94 V-2 in vertical flame test for wall thicknesses of 0.75, 1.5 and 3.0 mm. It also passes FAR 25.853 (A) flame test. It exhibits excellent abrasion resistance, toughness, transparency, very good low temperature flexibility, hydrolytic stability and fungus resistance. It has excellent damping characteristics and outstanding resistance to tear propagation. Elastollan® 1185A is supplied uncolored in pellet form.

General Information			
Features	Fungus Resistant		
	Good Abrasion Resistance		
	Good Tear Strength		
	Good Toughness		
	Hydrolytically Stable		
	Low Temperature Flexibility		
Agency Ratings	FAR 25.853		
Appearance	Colorless		
Processing Method	Extrusion		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.16	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/3.8 kg)	5.0 to 25	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	85		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	19.3	MPa	ASTM D412
Flexural Modulus (Injection Molded)	20.7	MPa	ASTM D790
Taber Abrasion Resistance	35.0	mg	ASTM D1044
Abrasion - DIN	30	mm ³	DIN 53516
Softening Point - DMA	70	°C	Internal Method
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	9.65	MPa	
300% Strain	24.1	MPa	
Tensile Strength	34.5	MPa	ASTM D412
Tensile Elongation (Break)	560	%	ASTM D412
Tear Strength ¹	110	kN/m	ASTM D624

Compression Set			ASTM D395B
23°C, 22 hr	25	%	
70°C, 22 hr	45	%	
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-47.0	°C	Internal Method
Vicat Softening Temperature	100	°C	ASTM D1525
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
0.750 mm	V-2		
1.50 mm	V-2		
3.00 mm	V-2		
Injection	Nominal Value	Unit	
Drying Temperature	100 to 110	°C	
Drying Time	2.0 to 3.0	hr	
Suggested Max Moisture	0.030	%	
Rear Temperature	190 to 220	°C	
Middle Temperature	190 to 220	°C	
Front Temperature	190 to 220	°C	
Nozzle Temperature	210 to 225	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	100 to 110	°C	
Drying Time	2.0 to 3.0	hr	
Cylinder Zone 1 Temp.	160 to 200	°C	
Cylinder Zone 3 Temp.	160 to 200	°C	
Cylinder Zone 5 Temp.	160 to 200	°C	
Adapter Temperature	175 to 200	°C	
Die Temperature	175 to 205	°C	
NOTE			
1.	Die C		

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