Elastollan® C78A15

Thermoplastic Polyurethane Elastomer (Polyester)

BASF Corp. Thermoplastic Polyurethanes

Message:

Elastollan ® C78A exhibits excellent abrasion resistance and toughness, good hydrolytic stability, good heat, oil, fuel and solvent resistance. It has excellent damping characteristics and outstanding resistance to tear propagation. Elastollan® C78A is rated UL-94 HB in vertical flame test for wall thickness of 0.9 mm. Elastollan® C78A is supplied uncolored in pellet form.

General Information	
UL YellowCard	E151418-526405
Features	Good Abrasion Resistance
	Good Tear Strength
	Good Toughness
	High Heat Resistance
	Hydrolytically Stable
	Solvent Resistant
Appearance	Colorless
Processing Method	Extrusion
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/21.6			
kg)	10 to 30	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	80		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	19.3	MPa	ASTM D412
Flexural Modulus (Injection Molded)	21.4	MPa	ASTM D790
Taber Abrasion Resistance	25.0	mg	ASTM D1044
Abrasion - DIN	15	mm³	DIN 53516
Softening Point - DMA	85	°C	Internal Method
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	5.52	MPa	
300% Strain	11.7	MPa	
Tensile Strength	37.2	MPa	ASTM D412
Tensile Elongation (Break)	680	%	ASTM D412
Tear Strength ¹	94.6	kN/m	ASTM D624
Compression Set			ASTM D395B

23°C, 22 hr	25	%	
70°C, 22 hr	35	%	
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-41.0	°C	Internal Method
Vicat Softening Temperature	79.0	°C	ASTM D1525
Flammability	Nominal Value		Test Method
Flame Rating (0.900 mm)	НВ		UL 94
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	170 to 210	°C	
Middle Temperature	170 to 210	°C	
Front Temperature	170 to 210	°C	
Nozzle Temperature	200 to 210	°C	
Extrusion	Nominal Value	Unit	
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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