Elastollan® C85A55

Thermoplastic Polyurethane Elastomer (Polyester)

BASF Corp. Thermoplastic Polyurethanes

Message:

Elastollan® C85A 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® C85A is rated UL-94 HB in vertical flame test for wall thicknesses of 0.9 and 3.0 mm. Elastollan® C85A is supplied uncolored in diced or pelletized form.

General Information				
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	1.19	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR)			ASTM D1238	
190°C/21.6 kg	2.0 to 5.0	g/10 min		
200°C/8.7 kg	6.0 to 13	g/10 min		
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness (Shore A)	85		ASTM D2240	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus (Injection Molded)	20.7	MPa	ASTM D412	
Flexural Modulus (Injection Molded)	24.8	MPa	ASTM D790	
Taber Abrasion Resistance	25.0	mg	ASTM D1044	
Abrasion - DIN	25	mm³	DIN 53516	
Softening Point - DMA	100	°C	Internal Method	
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress			ASTM D412	
100% Strain	6.89	MPa		
300% Strain	15.2	MPa		
Tensile Strength	41.4	MPa	ASTM D412	
Tensile Elongation (Break)	590	%	ASTM D412	
Tear Strength ¹	109	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	-40.0	°C	Internal Method
Vicat Softening Temperature	110	°C	ASTM D1525
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
0.900 mm	НВ		
3.00 mm	НВ		
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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