

Elastollan® C59D

Thermoplastic Polyurethane Elastomer (Polyester)

BASF Corp. Thermoplastic Polyurethanes

Message:

Elastollan® C59D 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® C59D is rated UL-94 V-2 in vertical flame test for wall thickness of 0.75 mm. Elastollan® C59D is supplied uncolored in diced 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	1.23	g/cm ³	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	56		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	131	MPa	ASTM D412
Flexural Modulus (Injection Molded)	138	MPa	ASTM D790
Taber Abrasion Resistance	45.0	mg	ASTM D1044
Abrasion - DIN	25	mm ³	DIN 53516
Softening Point - DMA	131	°C	Internal Method
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	23.4	MPa	
300% Strain	46.2	MPa	
Tensile Strength	50.3	MPa	ASTM D412
Tensile Elongation (Break)	430	%	ASTM D412
Tear Strength ¹	210	kN/m	ASTM D624
Compression Set			ASTM D395B
23°C, 22 hr	30	%	
70°C, 22 hr	50	%	
Thermal	Nominal Value	Unit	Test Method

Glass Transition Temperature	-15.0	°C	Internal Method
Vicat Softening Temperature	143	°C	ASTM D1525
Flammability	Nominal Value		Test Method
Flame Rating (0.750 mm)	V-2		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	110 to 120	°C	
Drying Time	2.0 to 3.0	hr	
Suggested Max Moisture	0.030	%	
Rear Temperature	210 to 230	°C	
Middle Temperature	210 to 230	°C	
Front Temperature	210 to 230	°C	
Nozzle Temperature	220 to 240	°C	
NOTE			
1.	Die C		

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