

Elastollan® S90AN

Thermoplastic Polyurethane Elastomer (Polyester)

BASF Corp. Thermoplastic Polyurethanes

Message:

Elastollan® S90AN is specifically formulated for injection molding applications with short cycling time. It exhibits good hydrolytic stability, excellent abrasion resistance, toughness, good heat, oil, fuel, and solvent resistance. It has excellent damping characteristics and outstanding resistance to tear propagation. Elastollan® S90AN 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 A)	90		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	45.5	MPa	ASTM D412
Flexural Modulus (Injection Molded)	45.5	MPa	ASTM D790
Taber Abrasion Resistance	25.0	mg	ASTM D1044
Abrasion - DIN	30	mm ³	DIN 53516
Softening Point - DMA	118	°C	Internal Method
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	12.4	MPa	
300% Strain	26.9	MPa	
Tensile Strength	42.7	MPa	ASTM D412
Tensile Elongation (Break)	540	%	ASTM D412
Tear Strength ¹	145	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	-31.0	°C	Internal Method
Vicat Softening Temperature	130	°C	ASTM D1525
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.	170 to 210	°C	
Cylinder Zone 3 Temp.	170 to 210	°C	
Cylinder Zone 5 Temp.	170 to 210	°C	
Adapter Temperature	200 to 220	°C	
Die Temperature	195 to 215	°C	
NOTE			
1.	Die C		

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