Elastollan® 1190A50

Thermoplastic Polyurethane Elastomer (Polyether)

BASF Corp. Thermoplastic Polyurethanes

Message:

Elastollan® 1190A is specifically formulated for extruded profile, tubing, sheet and film applications. 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® 1190A conforms to the FDA food contact section, book 21, section 177.2600. Elastollan® 1190A also has NSF Standard 61 "Water Contact Material" certification.. Elastollan® 1190A is supplied uncolored in diced or pelletized form.

General Information	
Features	Food Contact Acceptable
	Fungus Resistant
	Good Abrasion Resistance
	Good Tear Strength
	Good Toughness
	Hydrolytically Stable
	Low Temperature Flexibility
Agency Ratings	FDA 21 CFR 177.2600
	NSF 61
Appearance	Clear/Transparent
Processing Method	Extrusion
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.13	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	< 10	g/10 min	ASTM D1238
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A)	90		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (Injection Molded)	31.0	MPa	ASTM D412
Flexural Modulus (Injection Molded)	29.0	MPa	ASTM D790
Taber Abrasion Resistance	45.0	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	12.4	MPa	
300% Strain	27.6	MPa	

Tensile Strength	37.2	MPa	ASTM D412
Tensile Elongation (Break)	460	%	ASTM D412
Tear Strength [1]	128	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	-35.0	°C	Internal Method
Vicat Softening Temperature	120	°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		

Recommended distributors for this material

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