

Elastollan® 1174D

Thermoplastic Polyurethane Elastomer (Polyether)

BASF Corp. Thermoplastic Polyurethanes

Message:

Elastollan® 1174D 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® 1174D conforms to the FDA food contact regulations as described in book 21, section 177.2600 for wet food contact applications. Elastollan® 1174D also has NSF Standard 61 "Water Contact Material" certification. Elastollan® 1174D is supplied uncolored in diced 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	1.19	g/cm ³	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	73		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	524	MPa	ASTM D412
Flexural Modulus (Injection Molded)	503	MPa	ASTM D790
Taber Abrasion Resistance	75.0	mg	ASTM D1044
Abrasion - DIN	35	mm ³	DIN 53516
Softening Point - DMA	148	°C	Internal Method
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	38.6	MPa	
300% Strain	49.0	MPa	
Tensile Strength	49.0	MPa	ASTM D412
Tensile Elongation (Break)	300	%	ASTM D412

Tear Strength ¹	280	kN/m	ASTM D624
Compression Set			ASTM D395B
23°C, 22 hr	40	%	
70°C, 22 hr	60	%	
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	33.0	°C	Internal Method
Vicat Softening Temperature	160	°C	ASTM D1525
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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