

Arnitel® PL381-H
Envalior - Thermoplastic Copolyester Elastomer
General Information
Product Description

Injection Molding, Heat Stabilized

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Additive	• Heat Stabilizer		
Features	• Heat Stabilized		
Processing Method	• Injection Molding		
Resin ID	• TPC-ET		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.16	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	32	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.8	%	
Flow	1.6	%	
Water Absorption (Saturation, 73°F)	7.0	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.40	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6530	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	2030	psi	
Across Flow : Break	2610	psi	
Tensile Stress			ISO 527-2
5.0% Strain	319	psi	
10% Strain	580	psi	
50% Strain	1020	psi	
100% Strain	1160	psi	
300% Strain	1710	psi	
Tensile Strain			ISO 527-2
Break	> 300	%	
Across Flow : Break	810	%	
Nominal Tensile Strain at Break	450	%	ISO 527-2
Flexural Modulus	6530	psi	ISO 178
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ²			ISO 34-1
Across Flow	542	lbf/in	
Flow	531	lbf/in	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	No Break		
73°F	No Break		
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	No Break		
73°F	No Break		



Notched Izod Impact Strength		ISO 180/1A
-22°F	No Break	
-4°F	No Break	
73°F	No Break	
Tensile Impact Strength ³ (73°F)	85.2 ft·lb/in ²	ISO 8256/1
Hardness	Nominal Value Unit	Test Method
Shore Hardness (Shore D, 3 sec)	32	ISO 868
Thermal	Nominal Value Unit	Test Method
Glass Transition Temperature ⁴	-76.0 °F	ISO 11357-2
Vicat Softening Temperature	255 °F	ISO 306/A50
Melting Temperature ⁴	414 °F	ISO 11357-3
CLTE - Flow	8.3E-5 in/in/°F	ISO 11359-2
CLTE - Transverse	8.3E-5 in/in/°F	ISO 11359-2
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+12 ohms·m	IEC 62631-3-1
Electric Strength	510 V/mil	IEC 60243-1
Relative Permittivity		IEC 62631-2-1
100 Hz	4.70	
1 MHz	4.40	
Dissipation Factor		IEC 62631-2-1
100 Hz	0.031	
1 MHz	0.081	
Comparative Tracking Index	600 V	IEC 60112

Notes

¹ Typical properties: these are not to be construed as specifications.

² Method B, Angle

³ notched

⁴ 10°C/min

