

Arnitel® PL381
Envalior - Thermoplastic Copolyester Elastomer
General Information

Product Description			
Injection Molding			
General			
Material Status	<ul style="list-style-type: none"> Commercial: Active 		
Availability	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific 	<ul style="list-style-type: none"> Europe Latin America 	<ul style="list-style-type: none"> North America
Processing Method	<ul style="list-style-type: none"> Injection Molding 		
Resin ID	<ul style="list-style-type: none"> 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 (Break)	2030	psi	ISO 527-2
Tensile Stress			ISO 527-2
5.0% Strain	363	psi	
10% Strain	580	psi	
50% Strain	1020	psi	
100% Strain	1230	psi	
300% Strain	1710	psi	
Tensile Strain (Break)	> 300	%	ISO 527-2
Nominal Tensile Strain at Break	450	%	ISO 527-2
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ²	423	lbf/in	ISO 34-1
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-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)	33		ISO 868
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature ⁴	-76.0	°F	ISO 11357-2
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

