Arnitel® PL581

Envalior - *Thermoplastic Copolyester Elastomer*

General Information

Product Description			
Injection Molding			
General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Processing Method	• Extrusion	• Injection Molding	
Resin ID	• TPC-ET		

Properties [1]

Physical		Nominal Value	Unit	Test Method
Density		1.24	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)		15	cm³/10min	ISO 1133
Molding Shrinkage				ISO 294-4
Across Flow		1.8	%	
Flow		1.7	%	
Water Absorption (Saturation, 73°F)		2.5	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)		0.40	%	ISO 62
Mechanical		**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus		30500	psi	ISO 527-1
Tensile Stress (Yield)		2470	psi	ISO 527-2
Tensile Stress (Break)	• 4500 • 4500		psi	ISO 527-2
Tensile Stress				ISO 527-2
5.0% Strain		1330	psi	
10% Strain		1910	psi	
50% Strain		2390	psi	
100% Strain		2470	psi	
Tensile Strain (Yield)		35	%	ISO 527-2
Tensile Strain (Break)		300	%	ISO 527-2
Nominal Tensile Strain at Break		400	%	ISO 527-2
Elastomers		**Nominal Value**	**Unit**	**Test Method**
Tear Strength [2]		714	lbf/in	ISO 34-1
Impact		**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F		7.6	ft·lb/in²	
73°F		No Break		
Notched Izod Impact Strength				ISO 180/1A
-22°F		7.1	ft·lb/in²	
73°F		No Break		
Hardness		**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore D, 3 sec)		53		ISO 868
Thermal		**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)		212	°F	ISO 75-2/B
Vicat Softening Temperature		221	°F	ISO 306/B50
Melting Temperature [3]		424	°F	ISO 11357-3
CLTE - Flow		6.1E-5	in/in/°F	ISO 11359-2

CLTE - Transverse	6.1E-5	in/in/°F	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1
Electric Strength	530	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	4.00		IEC 62631-2-1
Dissipation Factor (1 MHz)	0.040		IEC 62631-2-1
Comparative Tracking Index	600	V	IEC 60112

Notes

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

[2] Method B, Angle

[3] 10°C/min