

Arnitel® EL550-08
Envalior - Thermoplastic Copolyester Elastomer
General Information
Product Description

Food Contact Quality, Injection Molding

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Features	• Food Contact Acceptable		
Processing Method	• Injection Molding		
Resin ID	• TPC-ET		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	23	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.6	%	
Flow	1.6	%	
Water Absorption (Saturation, 73°F)	0.65	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	30500	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	5080	psi	
Across Flow : Break	5660	psi	
Tensile Stress			ISO 527-2
5.0% Strain	1280	psi	
10% Strain	1860	psi	
50% Strain	2120	psi	
100% Strain	2120	psi	
Tensile Strain			ISO 527-2
Break	> 300	%	
Across Flow : Break	810	%	
Nominal Tensile Strain at Break	620	%	ISO 527-2
Flexural Modulus	33400	psi	ISO 178
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ²			ISO 34-1
Across Flow	874	lbf/in	
Flow	868	lbf/in	
Compression Set (158°F)	40	%	ISO 815
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	12	ft·lb/in ²	
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



-4°F	No Break		
73°F	No Break		
Tensile Impact Strength ³ (73°F)	103 ft·lb/in ²		ISO 8256/1
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 3 sec)	54		ISO 868
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	230 °F		ISO 75-2/B
Glass Transition Temperature ⁴	-83.2 °F		ISO 11357-2
Vicat Softening Temperature	194 °F		ISO 306/B50
Melting Temperature ⁴	399 °F		ISO 11357-3
CLTE - Flow	1.1E-4 in/in/°F		ISO 11359-2
CLTE - Transverse	1.1E-4 in/in/°F		ISO 11359-2
RTI Elec (0.06 in)	122 °F		UL 746B
RTI Imp (0.06 in)	122 °F		UL 746B
RTI Str (0.06 in)	122 °F		UL 746B
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+11 ohms·m		IEC 62631-3-1
Electric Strength	530 V/mil		IEC 60243-1
Relative Permittivity			IEC 62631-2-1
100 Hz	4.40		
1 MHz	4.00		
Dissipation Factor (1 MHz)	0.040		IEC 62631-2-1
Comparative Tracking Index	600 V		IEC 60112
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index			IEC 60695-2-12
0.04 in	1380 °F		
0.08 in	1380 °F		

Notes

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

² Method B, Angle

³ notched

⁴ 10°C/min

