

Arnitel® EM550
Envalior - Thermoplastic Copolyester Elastomer
General Information
Product Description

Film Extrusion, Food Contact Quality

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Features	• Food Contact Acceptable		
Processing Method	• Extrusion	• Film Extrusion	• 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)	9.0	cm ³ /10min	ISO 1133
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	25400	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	3630	psi	
Across Flow : Break	5950	psi	
Tensile Stress			ISO 527-2
5.0% Strain	1160	psi	
10% Strain	1740	psi	
50% Strain	2180	psi	
100% Strain	2320	psi	
Tensile Strain			ISO 527-2
Break	> 300	%	
Across Flow : Break	820	%	
Nominal Tensile Strain at Break	360	%	ISO 527-2
Flexural Modulus	26100	psi	ISO 178
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ²			ISO 34-1
Across Flow	714	lbf/in	
Flow	765	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		
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 3 sec)	52		ISO 868
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	194	°F	ISO 306/B50



Melting Temperature ³	405 °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
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
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.06 in)	HB	UL 94
Flammability Classification (0.06 in)	HB	IEC 60695-11-10, -20

Notes

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

² Method B, Angle

³ 10°C/min

