

Arnitel® EM460/U
Envalior - Thermoplastic Copolyester Elastomer
General Information
Product Description

Injection Molding or Extrusion Grade

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	1.15	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	50	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.5	%	
Flow	1.3	%	
Water Absorption (Saturation, 73°F)	0.70	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.30	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	11900	psi	ISO 527-1
Tensile Stress (Yield)	1310	psi	ISO 527-2
Tensile Stress (Break)	2610	psi	ISO 527-2
Tensile Stress			ISO 527-2
5.0% Strain	464	psi	
10% Strain	812	psi	
50% Strain	1190	psi	
100% Strain	1200	psi	
300% Strain	1710	psi	
Tensile Strain (Yield)	45	%	ISO 527-2
Tensile Strain (Break)	> 300	%	ISO 527-2
Nominal Tensile Strain at Break	• > 50 • 500	%	ISO 527-2
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
-4°F	No Break		
73°F	No Break		
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 3 sec)	43		ISO 868
Thermal	Nominal Value	Unit	Test Method
Melting Temperature ²	372	°F	ISO 11357-3
CLTE - Flow	8.9E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	8.9E-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
Effective Thermal Diffusivity	9.28E-5 in ² /s	
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+11 ohms·m	IEC 62631-3-1
Relative Permittivity (1 MHz)	4.40	IEC 62631-2-1
Dissipation Factor (1 MHz)	0.035	IEC 62631-2-1
Fill Analysis	Nominal Value Unit	Test Method
Melt Density	0.928 g/cm ³	
Melt Specific Heat	0.430 Btu/lb/°F	
Melt Thermal Conductivity	0.69 Btu·in/hr/ft ² /°F	ASTM E1461

Notes

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

² 10°C/min

