

Arnitel® UM552
Envalior - Thermoplastic Copolyester Elastomer
General Information
Product Description

Due to limited hydrolysis resistance, this material should only be used in dry environments.

General

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

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.26	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	9.5	g/10 min	ISO 1133
Water Absorption (Saturation, 73°F)	0.60	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.25	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	36300	psi	ISO 527-1
Tensile Stress (Yield)	2180	psi	ISO 527-2
Tensile Strain (Yield)	23	%	ISO 527-2
Nominal Tensile Strain at Break	> 50	%	ISO 527-2
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ²	942	lbf/in	ISO 34-1
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.9	ft·lb/in ²	
73°F	No Break		
Charpy Unnotched Impact Strength (-22°F)	2.9	ft·lb/in ²	ISO 179/1eU
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 15 sec)	55		ISO 868
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	176	°F	ISO 75-2/B
Vicat Softening Temperature	185	°F	ISO 306/B50
Melting Temperature ³	383	°F	ISO 11357-3
CLTE - Flow	8.9E-5	in/in/°F	ISO 11359-2
RTI Elec			UL 746B
0.030 in	320	°F	
0.12 in	320	°F	
RTI Imp			UL 746B
0.030 in	248	°F	
0.12 in	248	°F	
RTI Str			UL 746B
0.030 in	302	°F	
0.12 in	302	°F	
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94



0.06 in	HB	
0.12 in	HB	
Flammability Classification		IEC 60695-11-10, -20
0.030 in	HB	
0.06 in	HB	
0.12 in	HB	

Notes

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

² Method B, Angle

³ 10°C/min

