

Arnitel® PM581
Envalior - Thermoplastic Copolyester Elastomer
General Information
Product Description

Extrusion Grade, Heat Stabilized

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Additive	• Heat Stabilizer		
Features	• Heat Stabilized		
Processing Method	• Extrusion		
Resin ID	• TPC-ET		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.24	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	4.0	cm ³ /10min	ISO 1133
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	36300	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	3770	psi	
Across Flow : Break	6240	psi	
Tensile Stress			ISO 527-2
5.0% Strain	1380	psi	
10% Strain	2030	psi	
50% Strain	2610	psi	
100% Strain	2900	psi	
Across Flow : 100% Strain	2320	psi	
Tensile Strain - Across Flow (Break)	710	%	ISO 527-2
Nominal Tensile Strain at Break	220	%	ISO 527-2
Flexural Modulus	34800	psi	ISO 178
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ²			ISO 34-1
Across Flow	805	lbf/in	
Flow	851	lbf/in	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	7.6	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
-22°F	12	ft·lb/in ²	
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 (264 psi, Unannealed)	212	°F	ISO 75-2/A
Glass Transition Temperature ³	-70.6	°F	ISO 11357-2
Vicat Softening Temperature			
--	176	°F	ISO 306/B50
--	399	°F	ISO 306/A50
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			IEC 62631-2-1
100 Hz	4.70		
1 MHz	4.40		
Dissipation Factor			IEC 62631-2-1
100 Hz	0.031		
1 MHz	0.081		
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

