Arnite® AV2 370 XT

Envalior - *Polyethylene Terephthalate*

General Information

Product Description

35% Glass Fiber Reinforced, Applications with extremely narrow tolerances

Design Challenge
Narrow Tolerances

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight		
Processing Method	• Injection Molding		
Resin ID	• PET-GF35		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.66	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.90	%	
Flow	0.45	%	
Water Absorption (Saturation, 73°F)	0.45	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.18	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.89E+6	psi	ISO 527-1
Tensile Stress (Break)	26800	psi	ISO 527-2
Tensile Strain (Break)	2.3	%	ISO 527-2
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.8	ft·lb/in²	
73°F	4.0	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	24	ft·lb/in²	
73°F	26	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	482	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	432	°F	ISO 75-2/A
Melting Temperature [2]	491	°F	ISO 11357-3
CLTE - Flow	1.4E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	2.2E-5	in/in/°F	ISO 11359-2
RTI Elec (0.030 in)	302	°F	UL 746B
RTI Imp			UL 746B
0.030 in	248	°F	
0.12 in	266	°F	
RTI Str (0.030 in)	266	°F	UL 746B
Effective Thermal Diffusivity	1.34E-4	in²/s	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1
Electric Strength	840	V/mil	IEC 60243-1
Relative Permittivity			IEC 62631-2-1

100 Hz	3.70		
1 MHz	3.50		
Dissipation Factor			IEC 62631-2-1
100 Hz	3.0E-3		
1 MHz	0.013		
Comparative Tracking Index (CTI)	PLC 2		UL 746A
Comparative Tracking Index	250	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		
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Density	1.35	g/cm³	
Melt Specific Heat	0.399	Btu/lb/°F	
Melt Thermal Conductivity	1.4	Btu·in/hr/ft²/°F	ASTM E1461

Notes

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

[2] 10°C/min