

Arnite® TV4 251 XG2
Envalior - Polybutylene Terephthalate
General Information
Product Description

25% Glass Fiber Reinforced, Flame Retardant (halogen free)

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight
Features	• Flame Retardant • Halogen Free
Processing Method	• Injection Molding
Resin ID	• PBT-GF25 FR(30+40)

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.54	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (270°C/2.16 kg)	18	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.3	%	
Flow	0.70	%	
Water Absorption (Saturation, 73°F)	0.30	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.15	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.23E+6	psi	ISO 527-1
Tensile Stress (Break)	13800	psi	ISO 527-2
Tensile Strain (Break)	2.0	%	ISO 527-2
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.4	ft·lb/in ²	
73°F	2.4	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	14	ft·lb/in ²	
73°F	14	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	428	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	410	°F	ISO 75-2/A
Ball Pressure Test (419°F)	Pass		IEC 60695-10-2
Melting Temperature ²	437	°F	ISO 11357-3
RTI Elec	284	°F	UL 746B
RTI Imp	266	°F	UL 746B
RTI Str	284	°F	UL 746B
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 1		UL 746A
Comparative Tracking Index	550	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-2		UL 94
Flammability Classification			IEC 60695-11-10, -20
0.030 in	V-2		
0.06 in	V-2		



Glow Wire Flammability Index	IEC 60695-2-12
0.030 in	1760 °F
0.06 in	1760 °F

Notes

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

² 10°C/min

