

Arnite® TV4 261 /G UN.02.09

Envalior - Polybutylene Terephthalate

General Information
Product Description

30% Glass Fiber Reinforced, Glueable

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Processing Method	• Injection Molding
Resin ID	• PBT-GF30

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.52	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	18	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.2	%	
Flow	0.33	%	
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			ISO 527-1
--	1.45E+6	psi	
248°F	537000	psi	
Tensile Stress (Break)	19600	psi	ISO 527-2
Tensile Strain			ISO 527-2
Break	2.5	%	
Break, 248°F	5.0	%	
Break, 320°F	5.2	%	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.3	ft·lb/in ²	
73°F	4.3	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	29	ft·lb/in ²	
73°F	29	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)	401	°F	ISO 75-2/A
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.9E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	3.9E-5	in/in/°F	ISO 11359-2
Effective Thermal Diffusivity	1.28E-4	in ² /s	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1
Electric Strength	760	V/mil	IEC 60243-1
Relative Permittivity			IEC 62631-2-1
100 Hz	3.90		



1 MHz	3.70	
Dissipation Factor		IEC 62631-2-1
100 Hz	2.5E-3	
1 MHz	0.017	
Comparative Tracking Index (CTI)	PLC 1	UL 746A
Comparative Tracking Index	400 V	IEC 60112
Flammability	Nominal Value	Unit
Oxygen Index	20	%
Fill Analysis	Nominal Value	Unit
Melt Density	1.22	g/cm ³
Melt Specific Heat	0.442	Btu/lb/°F
Melt Thermal Conductivity	1.3	Btu·in/hr/ft ² /°F
	ASTM E1461	

Notes

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

² 10°C/min

