

Arnite® TV4 261 SF
Envalior - Polybutylene Terephthalate
General Information
Product Description

30% Glass Fiber Reinforced, Flame Retardant, High Flow

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Flame Retardant	• High Flow	
Processing Method	• Injection Molding		
Resin ID	• PBT-GF30 FR(17)		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.65	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.5	%	
Flow	0.50	%	
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
--	1.60E+6	psi	
-40°F	1.74E+6	psi	
212°F	769000	psi	
248°F	667000	psi	
320°F	450000	psi	
356°F	334000	psi	
Tensile Stress			ISO 527-2
Break	18900	psi	
Break, -40°F	28300	psi	
Break, 212°F	10200	psi	
Break, 248°F	8700	psi	
Break, 320°F	6530	psi	
Break, 356°F	5080	psi	
Tensile Strain			ISO 527-2
Break	2.5	%	
Break, -40°F	2.5	%	
Break, 248°F	5.0	%	
Break, 320°F	6.0	%	
Break, 356°F	7.0	%	
Flexural Modulus			ISO 178
--	1.52E+6	psi	
248°F	696000	psi	
320°F	464000	psi	
Flexural Stress			ISO 178
--	29000	psi	
248°F	14500	psi	



320°F		10200 psi	
Impact		Nominal Value Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F		3.8 ft·lb/in ²	
73°F		3.8 ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F		19 ft·lb/in ²	
73°F		24 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
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
RTI Elec			UL 746B
0.016 in		266 °F	
0.030 in		284 °F	
RTI Imp (0.030 in)		302 °F	UL 746B
RTI Str (0.030 in)		284 °F	UL 746B
Electrical		Nominal Value Unit	Test Method
Volume Resistivity		> 1.0E+13 ohms·m	IEC 62631-3-1
Electric Strength		710 V/mil	IEC 60243-1
Relative Permittivity			IEC 62631-2-1
100 Hz		4.00	
1 MHz		3.80	
Dissipation Factor			IEC 62631-2-1
100 Hz		2.5E-3	
1 MHz		0.014	
Comparative Tracking Index (CTI)		PLC 2	UL 746A
Comparative Tracking Index		300 V	IEC 60112
Flammability		Nominal Value Unit	Test Method
Flame Rating			UL 94
0.06 in	•	V-0	
	•	5VB	
0.12 in		V-0	
Flammability Classification			IEC 60695-11-10, -20
0.030 in		V-0	
0.06 in	•	V-0	
	•	5VB	
0.12 in		V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in		1760 °F	
0.06 in		1760 °F	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 in		1340 °F	
0.06 in		1290 °F	

Notes

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

² 10°C/min

