

Arnite® TV4 230
Envalior - Polybutylene Terephthalate
General Information
Product Description

15% Glass Fiber Reinforced

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight
Processing Method	• Injection Molding
Resin ID	• PBT-GF15

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	24	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.4	%	
Flow	0.60	%	
Water Absorption (Saturation, 73°F)	0.30	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-1
--	870000	psi	
-40°F	994000	psi	
212°F	363000	psi	
248°F	334000	psi	
320°F	261000	psi	
356°F	232000	psi	
Tensile Stress			ISO 527-2
Break	15200	psi	
Break, -40°F	18100	psi	
Break, 212°F	7980	psi	
Break, 248°F	7250	psi	
Break, 320°F	5800	psi	
Break, 356°F	4790	psi	
Tensile Strain			ISO 527-2
Break	3.5	%	
Break, -40°F	2.3	%	
Break, 248°F	7.0	%	
Break, 320°F	7.0	%	
Break, 356°F	7.0	%	
Flexural Modulus			ISO 178
--	812000	psi	
248°F	334000	psi	
320°F	290000	psi	
Flexural Stress			ISO 178
--	24700	psi	
248°F	10200	psi	



320°F	7980 psi		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.0	ft·lb/in ²	
73°F	3.0	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	
Unnotched Izod Impact Strength			ISO 180/1U
-22°F	12	ft·lb/in ²	
73°F	12	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)	383	°F	ISO 75-2/A
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	2.8E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	4.4E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1
Relative Permittivity			IEC 62631-2-1
100 Hz	3.60		
1 MHz	3.40		
Dissipation Factor			IEC 62631-2-1
100 Hz	2.0E-3		
1 MHz	0.018		
Comparative Tracking Index (CTI)	PLC 1		UL 746A
Comparative Tracking Index	300	V	IEC 60112

Notes

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

² 10°C/min

