Arnite® TZ6 280-T5.03.10

Envalior - *Polybutylene Terephthalate*

General Information

Product Description			
20% Glass Fiber Reinforced, 20% Glass Beads Reinforced			
General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Bead\Glass Fiber, 40% Filler by Weight		
Automotive Specifications	• GM GMW16427		
Processing Method	• Injection Molding		
Resin ID	• PBT-(GF+GB)40		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.60	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	12	cm³/10min	ISO 1133
Water Absorption (Saturation, 73°F)	0.25	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.15	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			ISO 527-1
--	1.33E+6	psi	
-40°F	1.57E+6	psi	
212°F	566000	psi	
248°F	508000	psi	
320°F	377000	psi	
356°F	319000	psi	
Tensile Stress			ISO 527-2
Break	16000	psi	
Break, -40°F	21000	psi	
Break, 212°F	8700	psi	
Break, 248°F	7250	psi	
Break, 320°F	5800	psi	
Break, 356°F	4350	psi	
Tensile Strain			ISO 527-2
Break	2.3	%	
Break, -40°F	2.0	%	
Break, 248°F	4.6	%	
Break, 320°F	5.0	%	
Break, 356°F	6.0	%	
Flexural Modulus			ISO 178
--	1.26E+6	psi	
248°F	493000	psi	
320°F	392000	psi	
Flexural Stress			ISO 178
--	23900	psi	
248°F	11600	psi	
320°F	8700	psi	
Impact	**Nominal Value**	**Unit**	**Test Method**

Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.9	ft·lb/in²	
73°F	3.3	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	17	ft·lb/in²	
73°F	19	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	410	°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	2.2E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	4.2E-5	in/in/°F	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1

Notes

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

[2] 10°C/min