Arnite® LT TV4 261

Envalior - *Polybutylene Terephthalate*

General Information

Product Description

Laser Transparent Black, Laser Weldable

Arnite® LT TV4 261 is a newly created and improved laser transparent PBT. Its high transparency enables twice as fast laser welding cycle times while still ensuring high dimensional stability for safe and reliable parts (airtight, watertight). It has high design flexibility for molding thin-walled parts as well as thicker parts that require laser-welding, e.g. for rapidly bonding radomes and back covers.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Laser Transparent	• Laser Weldable	
Appearance	• Black		
Resin ID	• PBT-GF30		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.54	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/2.16 kg)	17	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.4	%	
Flow	0.35	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.48E+6	psi	ISO 527-1
Tensile Stress (Break)	19600	psi	ISO 527-2
Tensile Strain (Break)	2.5	%	ISO 527-2
Flexural Modulus	1.33E+6	psi	ISO 178
Flexural Stress	31900	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.8	ft·lb/in²	
73°F	4.1	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	18	ft·lb/in²	
73°F	21	ft·lb/in²	
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]	433	°F	ISO 11357-3
Electrical	**Nominal Value**	**Unit**	**Test Method**
Electric Strength	940	V/mil	IEC 60243-1
Comparative Tracking Index	375	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.06 in	HB		
0.12 in	HB		
Flammability Classification			IEC 60695-11-10, -20

0.06 in	HB
0.12 in	HB

Notes

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

[2] 10°C/min