Clariant PBT PBT-1700G15

Polybutylene Terephthalate

Clariant Corporation

Message:

Clariant PBT PBT-1700G15 is a polybutene terephthalate (PBT) material, which contains a 15% glass fiber reinforced material. This product is available in North America and is processed by injection molding.
The main features of Clariant PBT PBT-1700G15 are:
flame retardant/rated flame
Flame Retardant
high strength
Hard
Good dimensional stability
Typical application areas include:
Electrical/electronic applications
Wire and cable

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 15% filler by weight		
Features	Good dimensional stability Rigidity, high High strength Good chemical resistance Heat resistance, high Good toughness Flame retardancy		
Uses	Electrical components		
Agency Ratings	UL 94		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.53	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.90	%	ASTM D955
Water Absorption (24 hr)	0.070	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
Class m	86		ASTM D785
Class r	120		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	89.6	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	4830	MPa	ASTM D790
Flexural Strength	145	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	59	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	210	°C	ASTM D648
1.8 MPa, not annealed	191	°C	ASTM D648
Melting Temperature	220 - 225	°C	
CLTE - Flow	2.7E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	18	kV/mm	ASTM D149
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.794 mm	V-0		UL 94
1.59 mm	V-0		UL 94
3.18 mm	V-0		UL 94
6.35 mm	V-0		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	232 - 274	°C	
Middle Temperature	232 - 274	°C	
Front Temperature	232 - 274	°C	
Processing (Melt) Temp	232 - 246	°C	
Melt Temperature (Aim)	241	°C	
Mold Temperature	65.6 - 82.2	°C	
Injection Rate	Fast		
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	20 - 80	rpm	
Cushion	3.18 - 6.35	mm	

Injection instructions

Injection Pressure: Use minimum pressure to achieve 95% fill during the boost inj. pressure phase.Hold Pressure: 30% to 75% of injection pressure.Mold Temp. Target: 165°FScrew Speed Target: 50 RPM

Recommended distributors for this material

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