Ranger PBT PBT-201-G25 202

Polybutylene Terephthalate

Beijing Ranger Chemical Co., Ltd.

Message:

Unreinforced grades have abundant strength and flexibility, and have strong characteristics against brittleness.

UL-certified slow-burning(94HB) and self-extinguishing grades(94V-0,V-2) exist, and electrical properties exhibited are the highest of any thermoplastic. Low water absorption is exhibited, and excellent electrical properties(CTI and GWIT) are retained over extended periods of usages, even with widely varied temperature and humidity conditions.

The surface of molded products is smooth, and a low coefficient of friction is exhibited. As the amount of froction is low, PBT is suitable for use in application requiring friction and wear properties.

The material is exceptionally reliable, with small in-use dimensional variation, and superior molding stability and dimensional precision.

Long-term chemical resistance is exceptional, and at room temperature, there is almost no degradation in properties after.

Both unreinforced and reinforced grades exhibit exceptional flowability, and excellent processability.

Application: VCD drive frames\ Connectors\ Trimmers\ Switch buttons for gas-fired instantaneous water heaters\ Relay blocks\ Driers\ Rectifiers\ Outer handles\ Height sensor cases\ Door mirror stays\ Drive component housings\ Energy saving lamp.

General Information										
UL YellowCard	E255317-100032018									
Features	Environmentally Sound									
	Flame Retardant									
	Good Chemical Resistance									
	Good Dimensional Stability									
	Good Electrical Properties									
	Good Flexibility Good Flow Good Processability Good Surface Finish High Strength Low Friction									
						Low to No Water Absorption				
						Uses	Automotive Applications			
							Electrical/Electronic Applications			
							Housings			
						Forms	Pellets			
	Processing Method	Injection Molding								
Physical	Nominal Value	Unit	Test Method							
Specific Gravity	1.58	g/cm³	ASTM D792							
Molding Shrinkage - Flow	0.40 to 0.80	%	ASTM D955							
Water Absorption (23°C, 24 hr)	0.050	%	ASTM D570							
Mechanical	Nominal Value	Unit	Test Method							
Tensile Strength (Yield)	110	MPa	ASTM D638							

Flexural Modulus	7500	MPa	ASTM D790
Flexural Strength	170	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength	9.0	kJ/m²	ASTM D256
Unnotched Izod Impact Strength	55	kJ/m²	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	216	°C	
1.8 MPa, Unannealed	206	°C	
Electrical	Nominal Value	Unit	Test Method
Electrical Volume Resistivity (2.00 mm)	Nominal Value 1.3E+16	Unit ohms·cm	Test Method ASTM D257
Volume Resistivity (2.00 mm)	1.3E+16	ohms·cm	ASTM D257
Volume Resistivity (2.00 mm) Dielectric Strength (2.00 mm)	1.3E+16 20	ohms·cm	ASTM D257 ASTM D149
Volume Resistivity (2.00 mm) Dielectric Strength (2.00 mm) Dielectric Constant (50 Hz)	1.3E+16 20 3.20	ohms·cm	ASTM D257 ASTM D149 ASTM D150
Volume Resistivity (2.00 mm) Dielectric Strength (2.00 mm) Dielectric Constant (50 Hz) Dissipation Factor (50 Hz)	1.3E+16 20 3.20 0.020	ohms·cm kV/mm	ASTM D257 ASTM D149 ASTM D150 ASTM D150
Volume Resistivity (2.00 mm) Dielectric Strength (2.00 mm) Dielectric Constant (50 Hz) Dissipation Factor (50 Hz) Flammability	1.3E+16 20 3.20 0.020	ohms·cm kV/mm	ASTM D257 ASTM D149 ASTM D150 ASTM D150 Test Method

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