## Ranger PBT PBT-201-G10

## 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.

E255317-501004		
Good dimensional stability		
Low friction coefficient		
High strength		
Workability, good		
Good electrical performance		
Good liquidity		
Good flexibility		
Good chemical resistance		
General		
Low or no water absorption		
Excellent appearance		
Flame retardancy		
Electrical/Electronic Applications		
Application in Automobile Field		
Shell		
Particle		
Injection molding		
Nominal Value	Unit	Test Method
1.45	g/cm³	ASTM D792
0.60 - 1.3	%	ASTM D955
0.080	%	ASTM D570
Nominal Value	Unit	Test Method
	E255317-501004 Good dimensional stability Low friction coefficient High strength Workability, good Good electrical performance Good liquidity Good flexibility Good chemical resistance General Low or no water absorption Excellent appearance Flame retardancy Electrical/Electronic Applications Application in Automobile Field Shell Particle Nominal Value 1.45 0.60 - 1.3 0.080	E255317-501004   Good dimensional stability   Low friction coefficient   High strength   Workability, good   Good electrical performance   Good liquidity   Good flexibility   Good chemical resistance   General   Low or no water absorption   Excellent appearance   Flame retardancy   Shell   Particle   Injection molding   Nominal Value Unit   1.45 g/cm³   0.60 - 1.3 %   0.80 %

Flexural Modulus	6500	MPa	ASTM D790
Flexural Strength	140	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	6.0	kJ/m²	ASTM D256
Unnotched Izod Impact Strength	40	kJ/m²	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	205	°C	ASTM D648
1.8 MPa, not annealed	195	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (2.00 mm)	1.1E+16	ohms·cm	ASTM D257
Dielectric Strength (2.00 mm)	19	kV/mm	ASTM D149
Dielectric Constant (50 Hz)	3.00		ASTM D150
Dissipation Factor (50 Hz)	0.020		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.800 mm	V-0		UL 94
1.60 mm	V-0		UL 94
Injection	Nominal Value	Unit	
Rear Temperature	225 - 245	°C	
Middle Temperature	225 - 245	°C	
Front Temperature	225 - 245	°C	
Nozzle Temperature	240	°C	
Mold Temperature	60.0 - 80.0	°C	
Injection Pressure	40.0 - 100	MPa	
Back Pressure	4.00 - 15.0	MPa	
Screw Speed	< 100	rpm	
Injection instructions			

Injection Time: 3 to 15 secTime Pressure: 2 to 5 secTotal Cycle: 15 to 50 sec

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