# Ranger PBT PBT-201-G15

### 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	E255317-501005				
Features	Flame Retardant				
	General Purpose				
	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	1.52	g/cm³	ASTM D792		
Molding Shrinkage - Flow	0.40 to 1.3	%	ASTM D955		
Water Absorption (23°C, 24 hr)	0.070	%	ASTM D570		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Strength (Yield)	100	MPa	ASTM D638		

Flexural Modulus	7000	MPa	ASTM D790
Flexural Strength	150	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength	7.0	kJ/m²	ASTM D256
Unnotched Izod Impact Strength	45	kJ/m²	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	208	°C	
1.8 MPa, Unannealed	200	°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (2.00 mm)	1.1E+16	ohms·cm	ASTM D257
Dielectric Strength (2.00 mm)	20	kV/mm	ASTM D149
Dielectric Constant (50 Hz)	3.10		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		
	VÖ		

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