# Ranger PBT PBT-201-G30 272

## 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										
Features	Good dimensional stability									
	Low friction coefficient									
	High strength									
	Workability, good									
	Good electrical performance									
	Good liquidity Good flexibility Good chemical resistance Low or no water absorption Excellent appearance									
							Flame retardancy			
						Uses	Electrical/Electronic Applications			
							Application in Automobile Field			
Shell										
Lighting device										
Forms	Particle									
Processing Method	Injection molding									
Physical	Nominal Value	Unit	Test Method							
Specific Gravity	1.60	g/cm³	ASTM D792							
Molding Shrinkage - Flow	0.40 - 0.80	%	ASTM D955							
Water Absorption (23°C, 24 hr)	0.050	%	ASTM D570							
Mechanical	Nominal Value	Unit	Test Method							
Tensile Strength (Yield)	115	MPa	ASTM D638							
Flexural Modulus	8000	MPa	ASTM D790							

Flexural Strength	180	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	10	kJ/m²	ASTM D256
Unnotched Izod Impact Strength	58	kJ/m²	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	215	°C	ASTM D648
1.8 MPa, not annealed	202	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (2.00 mm)	1.3E+16	ohms·cm	ASTM D257
Dielectric Strength (2.00 mm)	20	kV/mm	ASTM D149
Dielectric Constant (50 Hz)	3.20		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 - 250	°C	
Middle Temperature	225 - 250	°C	
Front Temperature	225 - 250	°C	
Nozzle Temperature	240	°C	
Mold Temperature	60.0 - 80.0	°C	
Injection Pressure	80.0 - 120	MPa	
injection riessure			
Back Pressure	8.00 - 18.0	MPa	
•	8.00 - 18.0 < 100	MPa rpm	

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

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