

Ranger PBT PBT-201-G30 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 | E255317-100032019 | | |
| Features | Good dimensional stability | | |
| | Low friction coefficient | | |
| | High strength | | |
| | Environmental protection | | |
| | 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 | | |
| Forms | Particle | | |
| Processing Method | Injection molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 1.60 | g/cm ³ | ASTM D792 |
| Molding Shrinkage - Flow | 0.40 - 0.60 | % | 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/m ² | ASTM D256 |
| Unnotched Izod Impact Strength | 60 | kJ/m ² | ASTM D256 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, not annealed | 220 | °C | ASTM D648 |
| 1.8 MPa, not annealed | 208 | °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) | 3.30 | | 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 | |
| Back Pressure | 8.00 - 18.0 | 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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