Ranger PBT PBT-403-G-M50

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
	Environmental protection
	Workability, good
	Good electrical performance
	Good liquidity
	Good flexibility
	Good chemical resistance
	Heat resistance, high
	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	1.71	g/cm³	ASTM D792
Molding Shrinkage - Flow	0.40 - 0.50	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.030	%	ASTM D570

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	125	MPa	ASTM D638

Flexural Modulus	10500	MPa	ASTM D790
Flexural Strength	210	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	14	kJ/m^2	ASTM D256
Unnotched Izod Impact Strength	70	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	209	°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)	22	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	255 - 280	°C	
Middle Temperature	255 - 280	°C	
Front Temperature	255 - 280	°C	
Nozzle Temperature	265	°C	
Mold Temperature	60.0 - 80.0	°C	
Injection Pressure	100 - 140	MPa	
Back Pressure	10.0 - 20.0	MPa	
Screw Speed	< 100	rpm	

Injection instructions

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

Recommended distributors for this material

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