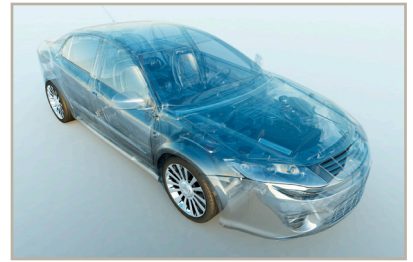


PREMIER™ PBT-225

Hydrolysis Resistant Conductive Plastic



Customer Value Proposition:

Parker Chomerics **PREMIER™ PBT-225** is a single pellet, polybutylene terephthalate (PBT) based, electrically conductive plastic that delivers superior reliability, making metal to plastic housing conversions possible for demanding electronics applications.

PBT-225 is specially formulated to **deliver excellent hydrolysis resistance**, thereby improving long term aging performance when exposed to typical heat and humidity conditions found on automotive applications.

The single pellet composition of PBT-225 provides a more reliable solution to traditional two pellet blend (also known as “salt and pepper blend”) conductive resin systems. The easy processing of PBT-225 allows for uniform filler dispersion and, as a result, tightly controlled electrical and mechanical performance throughout complex geometries.

The improved hydrolysis resistance, electrical properties and manufacturability of PBT-225 makes it a superior choice for plastic housing.

Product Features:

- Single pellet composition eliminates inconsistent mix ratio problems associated with multi pellet blends
- Long stainless steel fiber increases shielding effectiveness
- Glass fiber reinforcement enhances mechanical strength
- Uniform shielding in complex geometries
- No weighing or mixing of materials required
- Hydrolysis resistant PBT
- Improved pellet integrity optimizes material conveyance
- Sustainable product and process
- Consistent melt and mix ratio of ingredients eliminates harmful agglomerations

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Typical Applications:

- Automotive Electronic Housings
- Connector Bodies
- Motor Housings
- Sensor Housings
- Infotainment Enclosures
- Military Handheld Devices
- Industrial Metering Devices
- Faceplates
- Base Stations
- Military Housings
- Life Science Enclosures
- Telecom Equipment
- IT Rack and Server Components
- Heavy Duty Connectors
- Renewable Energy Housings and Connectors

PREMIER™ PBT-225 Properties

PBT-225 is formulated to be hydrolysis resistant when exposed to heat and humidity which can extend the service life of the component or assembly.

Laboratory testing demonstrated in Figure 1 highlights the improvement in the retention of tensile strength after 2400 hour exposure to 85° C and 85% R.H.

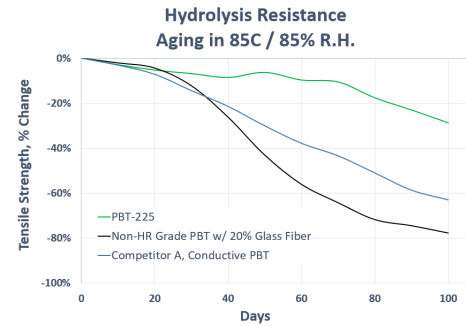


Figure 1 - Typical Hydrolysis Resistance

Table 1 - Typical PBT-225 Properties

	Value	Test Method	Nominal Value (English)	Unit	Nominal Value (SI)	Unit
Shielding Effectiveness	Average from:					
	30 to 1,500 MHz*	*ASTM D4935	40		40	
	800 to 4,000 MHz**		40		40	
	6,000 to 12,000 MHz**	**IEEE 299 (Modified)	55	dB	55	dB
	14,000 to 18,000 MHz**		70		70	
	20,000 to 40,000 MHz**		80		80	
Physical	Specific Gravity	ASTM D792	1.66	--	1.66	--
	Mold Shrinkage 0.125 in (3.2 mm)	ASTM D995	0.005	in/in	0.5	%
Mechanical	Tensile Modulus	ASTM D638	1.33 x 10 ⁶	psi	9.2	GPa
	Tensile Strength @ Break	ASTM D638	11,889	psi	89	MPa
	Tensile Elongation @ Break	ASTM D638	1.89	%	1.89	%
	Flexural Modulus	ASTM D790	1.13 x 10 ⁶	Mpsi	7.8	GPa
	Flexural Strength	ASTM D790	16,060	psi	111	MPa
Impact	Izod - Notched 73° F (23° C)	ASTM D256	0.78	ft-lb/in	4.25	cm-kg/cm
	Izod - Unnotched 73° F (23° C)	ASTM D4812	5.76	ft-lb/in	31.35	cm-kg/cm
Thermal	HDUL @ 264 psi (1.82 MPa)	ASTM D648	382	° F	200	° C
	Thermal Conductivity	ASTM D5470	0.65	W/m-k	0.65	W/m-k
	Flammability Rating	UL 94 HB	Pass	--	Pass	--
Electrical	Surface Resistance	MIL-DTL-83528C	10	Ohm/sq	10	Ohm/sq
	Through Resistance	PRE-012	2.95	Ohm	2.95	Ohm

Part Number	Standard Container Sizes
CP-PBT-225	55, 275 & 1100 LBS box
CK-PBT-225	25, 125 & 500 KGS box

www.chomerics.com
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Parker Chomerics PREMIER
PBT-225 MS EN 11/30/16



ENGINEERING YOUR SUCCESS.