

PREMIER™ PBT-225 CONDUCTIVE PLASTIC




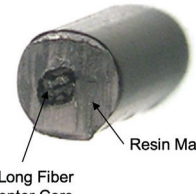
PREMIER™ PBT-225 is the Parker Chomerics single pellet, polybutylene terephthalate (PBT) based, electrically conductive plastic that delivers superior reliability, making metal to plastic housing conversions possible for demanding electronic applications.

Common Applications

- Automotive Electronic Housings
- Sensor Housings
- Military Handheld Devices
- Medical Device Enclosures
- Telecom Equipment
- Motor Housings

VALUE PROPOSITION

- Assembly integration – Simplify designs
- Weight reduction – 35% less than aluminum
- Reduced warranty claims
 - Uniform material dispersion leads to greater mechanical and electrical consistency
 - Ensures consistent shielding performance from one part to the next
 - Uniform dispersion in complex geometries allows better shielding in thinner walls


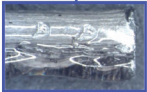



Pellet A:
3.4mm x Ø 2.3
Non-Conductive

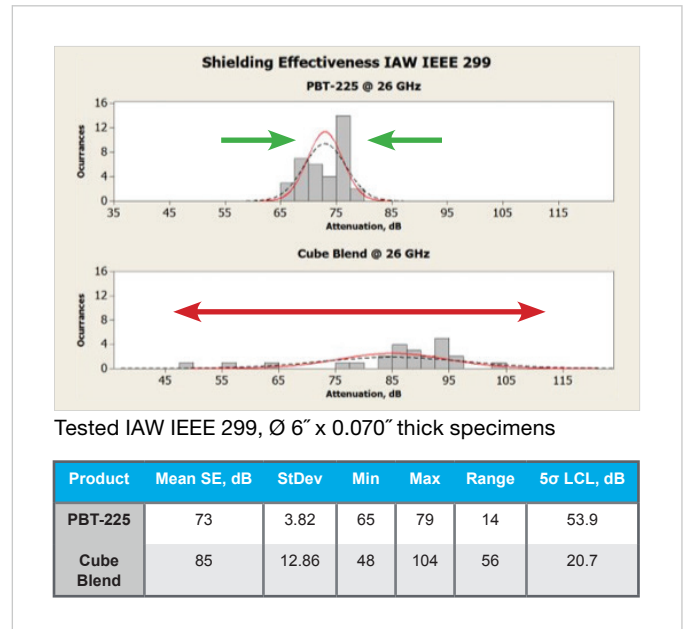
Pellet B:
10mm L x Ø 2.3
Conductive Fiber Bundle

Long Fiber Center Core
Resin Matrix

Premier™ single pellet
conductive plastic

Master batch blend
conductive plastic



PRODUCT FEATURES

- Consistent mix ratio provided by single pellet composition
- Increased shielding effectiveness by long stainless steel fiber
- Hydrolysis resistant PBT
- Elimination of harmful agglomerations due to consistent mix of ingredients
- Enhanced mechanical strength due to glass fabric reinforcement

PROPERTIES

	Value	Test Method	Nominal Value (English)	Unit	Nominal Value (SI)	Unit
Shielding Effectiveness	Average from: 30 to 1,500 MHz*	*ASTM D4935	40	dB	40	dB
	800 to 4,000 MHz**		40		40	
	6,000 to 12,000 MHz**	**IEEE 299 (Modified)	55		55	
	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/mk
	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

For more information, contact your local Zatkoff representative or visit our website.