# PREMIER™ PEI-140

### Polyether Imide

Chomerics, div. of Parker Hannifin Corp.

#### Message:

PREMIER™ PEI-140 is a custom blend of polyetherimide plus engineered filler for stable electrical, mechanical and physical performance at high continuous temperature exposures. It is filled with the production proven PREMIER proprietary filler system that is formulated for consistent shielding over a wide range of frequencies.

General Information					
Filler / Reinforcement	Nickel-Coated Carbon Fiber				
	Stainless Steel Fiber				
Features	Electrically Conductive				
	Electromagnetic Shielding (EMI)				
	Good Chemical Resistance				
	Good Corrosion Resistance				
	High Strength				
	Low Density				
	Non-Corrosive				
	Recyclable Material				
	Sound Damping				
Uses	Aircraft Applications				
RoHS Compliance	RoHS Compliant				
Forms	Pellets				
	Preformed Parts				
Processing Method	Injection Molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.61	g/cm³	ASTM D792		
Molding Shrinkage - Flow (3.20 mm)	0.35	%	ASTM D955		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	15800	MPa	ASTM D638		
Tensile Strength (Break)	103	MPa	ASTM D638		
Tensile Elongation (Break)	4.3	%	ASTM D638		
Flexural Modulus	8200	MPa	ASTM D790		
Flexural Strength	138	MPa	ASTM D790		
Impact	Nominal Value	Unit	Test Method		
Charpy Notched Impact Strength	45.0	J/m	ASTM D6110		
Notched Izod Impact (23°C)	60	J/m	ASTM D256		
Unnotched Izod Impact (23°C)	210	J/m	ASTM D256		

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8			
MPa, Unannealed)	184	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity <sup>1</sup>	0.45	ohms	Internal Method
Volume Resistivity <sup>2</sup>	0.38	ohms·cm	Internal Method
Shielding Effectiveness			
1.80 mm <sup>3</sup>	80	dB	IEEE 299
1.80 mm <sup>4</sup>	72	dB	ASTM D4935
Smoke Density <sup>5</sup>			ASTM E662
2.00 mm	30	Ds	
2.50 mm	30	Ds	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	V-0		UL 94
Oxygen Index	41	%	ASTM D2863
NOTE			
1.	MIL-DTL-83528C		
2.	PRE-012		
3.	800 to 18,000 MHz		
4.	30 to 1000 MHz		
5.	4 minutes		

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#### Recommended distributors for this material

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