

## Premix Thermoplastics PRE-ELEC® PA 1406

Category : Polymer , Thermoplastic , Nylon , Nylon 6

### Material Notes:

PRE-ELEC PA 1406 is a conductive thermoplastic compound based on polyamide 6. Conductivity is achieved by using conductive carbon fiber. In addition to a low electrical resistivity PRE-ELEC PA 1406 has an excellent balance of mechanical properties and is easy to injection mould. Typical applications include injection molded technical parts and housings for electronic components and other static sensitive devices (SSD) when high rigidity is needed. Test Specimen - 4.0 mm thick, 10.0 mm wide molded rod. Information provided by Premix Thermoplastics Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Premix-Thermoplastics-PRE-ELEC-PA-1406.php](http://www.lookpolymers.com/polymer_Premix-Thermoplastics-PRE-ELEC-PA-1406.php)

Physical Properties	Metric	English	Comments
Density	1.10 g/cc	0.0397 lb/in <sup>3</sup>	
Linear Mold Shrinkage	0.0040 cm/cm	0.0040 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	82	82	ISO 868
Tensile Strength, Yield	92.0 MPa	13300 psi	ISO 527
Elongation at Break	10 %	10 %	ISO 527
Modulus of Elasticity	5.00 GPa	725 ksi	ISO 178
Izod Impact, Notched	0.500 J/cm	0.937 ft-lb/in	ISO 180
	@Thickness 4.00 mm, Temperature -20.0 °C	@Thickness 0.157 in, Temperature -4.00 °F	
	5.00 J/cm	9.37 ft-lb/in	ISO 180
	@Thickness 4.00 mm, Temperature 23.0 °C	@Thickness 0.157 in, Temperature 73.4 °F	
Izod Impact, Unnotched	1.25 J/cm	2.34 ft-lb/in	ISO 180
	@Thickness 4.00 mm, Temperature -20.0 °C	@Thickness 0.157 in, Temperature -4.00 °F	
	5.30 J/cm	9.93 ft-lb/in	ISO 180
	@Thickness 4.00 mm, Temperature 23.0 °C	@Thickness 0.157 in, Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	208 °C	406 °F	ISO 75/Method Bf

Thermal Properties	Metric	English	Comments
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Electrical Properties	Metric	English	Comments
Volume Resistivity	<= 1e+05	<= 1e+05	ISO D-257
Surface Resistance	<= 1.00e+7 ohm	<= 1.00e+7 ohm	ISO D-257

Processing Properties	Metric	English	Comments
Melt Temperature	200 - 250 °C	392 - 482 °F	
Mold Temperature	60.0 - 80.0 °C	140 - 176 °F	
Drying Temperature	80.0 °C @Time 7200 - 14400 sec	176 °F @Time 2.00 - 4.00 hour	Pre-drying in a dehumidifier
Moisture Content	<= 0.15 %	<= 0.15 %	When Produced
Injection Pressure	60.0 - 80.0 MPa	8700 - 11600 psi	
Shelf Life	12.0 Month	12.0 Month	Normal Storing Conditions

Descriptive Properties	Value	Comments
Appearance	Granule	
Color	Black	
Injection Speed	Moderate	

## Contact Songhan Plastic Technology Co.,Ltd.

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