

## Premix Thermoplastics PRE-ELEC® PA 1408 Conductive Thermoplastic Compound

Category : Polymer , Thermoplastic , Nylon , Nylon 6

### Material Notes:

PRE-ELEC® PA 1408 is a conductive thermoplastic compound based on polyamide 6. Conductivity is achieved by using conductive carbon black. In addition to a low electrical resistivity PRE-ELEC® PA 1408 has an excellent balance of mechanical properties and is easy to injection mould. Applications: Injection moulded housings, boxes and technical parts. PRE-ELEC® PA 1408 is well suited for applications where the good mechanical properties of polyamide are required. Processing: PRE-ELEC® PA 1408 compound can be processed in the injection moulding machines using normal processing conditions as with polyamide. Test Specimen: 10[mm] wide moulded rod Information from Premix OY

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Premix-Thermoplastics-PRE-ELEC-PA-1408-Conductive-Thermoplastic-Compound.php](http://www.lookpolymers.com/polymer_Premix-Thermoplastics-PRE-ELEC-PA-1408-Conductive-Thermoplastic-Compound.php)

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in <sup>3</sup>	
Thickness	102 microns	4.00 mil	
Linear Mold Shrinkage	0.016 - 0.022 cm/cm	0.016 - 0.022 in/in	ISO 294-4
Melt Flow	0.070 g/10 min	0.070 g/10 min	ISO 1133
	@Load 5.00 kg, Temperature 275 °C	@Load 11.0 lb, Temperature 527 °F	
	13 g/10 min	13 g/10 min	ISO 1133
	@Load 10.0 kg, Temperature 275 °C	@Load 22.0 lb, Temperature 527 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	85	85	ISO 868
Tensile Strength	50.0 MPa	7250 psi	ISO 527
Tensile Strength, Yield	60.0 MPa	8700 psi	ISO 527
Elongation at Break	45 %	45 %	ISO 527
Elongation at Yield	9.0 %	9.0 %	ISO 527
Flexural Modulus	1.90 GPa	276 ksi	ISO 178
Izod Impact, Notched (ISO)	20.0 kJ/m <sup>2</sup>	9.52 ft-lb/in <sup>2</sup>	ISO 180
	@Thickness 4.00 mm, Temperature -20.0 °C	@Thickness 0.157 in, Temperature -4.00 °F	

Mechanical Properties	50.0 kJ/m <sup>2</sup> Metric	23.8 ft-lb/in <sup>2</sup> English	Comments ISO 180
	@Thickness 4.00 mm, Temperature 23.0 °C	@Thickness 0.157 in, Temperature 73.4 °F	
Izod Impact, Unnotched (ISO)	NB  @Thickness 4.00 mm, Temperature 23.0 °C	NB  @Thickness 0.157 in, Temperature 73.4 °F	ISO 180
	NB  @Thickness 4.00 mm, Temperature -20.0 °C	NB  @Thickness 0.157 in, Temperature -4.00 °F	ISO 180
Charpy Impact Unnotched	NB  @Thickness 102 mm, Temperature 23.0 °C	NB  @Thickness 4.00 in, Temperature 73.4 °F	ISO 179
	NB  @Thickness 102 mm, Temperature -20.0 °C	NB  @Thickness 4.00 in, Temperature -4.00 °F	ISO 179
Charpy Impact, Notched	2.50 J/cm <sup>2</sup>  @Thickness 102 mm, Temperature -20.0 °C	11.9 ft-lb/in <sup>2</sup>  @Thickness 4.00 in, Temperature -4.00 °F	ISO 179
	3.00 J/cm <sup>2</sup>  @Thickness 102 mm, Temperature 23.0 °C	14.3 ft-lb/in <sup>2</sup>  @Thickness 4.00 in, Temperature 73.4 °F	ISO 179

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	152 °C	306 °F	75/Method Bf
Deflection Temperature at 1.8 MPa (264 psi)	60.0 °C	140 °F	75/Method Af
Vicat Softening Point	180 °C	356 °F	ISO 306/B50
	210 °C	410 °F	ISO 306/A50

Electrical Properties	Metric	English	Comments
Volume Resistivity	<= 1.00e+7 ohm-cm	<= 1.00e+7 ohm-cm	ISO D-257
Surface Resistance	<= 1.00e+8 ohm	<= 1.00e+8 ohm	ISO IEC 61340-5-1

Processing Properties	Metric	English	Comments
Melt Temperature	220 - 280 °C	428 - 536 °F	
Mold Temperature	60.0 - 80.0 °C	140 - 176 °F	

Processing Properties	Metric	English	Comments
Dry Time	2 - 4 hour	2 - 4 hour	
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
Injection Speed	Moderate	

## Contact Songhan Plastic Technology Co.,Ltd.

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