

## Premix Thermoplastics PRE-ELEC® 12-031 (discontinued \*\*)

Category : Polymer , Thermoplastic , Acetal (POM)

### Material Notes:

PRE-ELEC 12-031 is a conductive thermoplastic compound based on a polyacetal copolymer with 10% carbon fiber. PRE-ELEC 12-031 exhibits excellent mechanical properties and electrical conductivity. 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-12-031-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Premix-Thermoplastics-PRE-ELEC-12-031-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.44 g/cc	0.0520 lb/in <sup>3</sup>	
Linear Mold Shrinkage	0.0030 - 0.0050 cm/cm	0.0030 - 0.0050 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	66.0 MPa	9570 psi	ISO 527
Elongation at Break	3.0 %	3.0 %	ISO 527
Tensile Modulus	9.00 GPa	1310 ksi	ISO 527
Izod Impact, Notched	0.580 J/cm @Thickness 4.00 mm, Temperature 23.0 °C	1.09 ft-lb/in @Thickness 0.157 in, Temperature 73.4 °F	ISO 180
Izod Impact, Unnotched	3.70 J/cm @Thickness 4.00 mm, Temperature 23.0 °C	6.93 ft-lb/in @Thickness 0.157 in, Temperature 73.4 °F	ISO 180

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	160 °C	320 °F	ISO 75/Method Bf
Deflection Temperature at 1.8 MPa (264 psi)	147 °C	297 °F	ISO 75/Method Af

Electrical Properties	Metric	English	Comments
Volume Resistivity	<= 1000 ohm-cm	<= 1000 ohm-cm	ISO D-257
Surface Resistance	<= 1e+05	<= 1e+05	ISO D-257
Static Decay	<= 2.0 sec	<= 2.0 sec	ISO IEC 61340-5-1

Processing Properties	Metric	English	Comments
Melt Temperature	185 - 210 °C	365 - 410 °F	
Mold Temperature	80.0 - 105 °C	176 - 221 °F	
Drying Temperature	80.0 °C @Time 10800 - 14400 sec	176 °F @Time 3.00 - 4.00 hour	Pre-drying in a dehumidifier
Injection Pressure	60.0 - 80.0 MPa	8700 - 11600 psi	

Descriptive Properties	Value	Comments
Injection Speed	Moderate	

## Contact Songhan Plastic Technology Co.,Ltd.

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