

## Techmer ES Electrafil<sup>®</sup> J-50/CF/30/TF/15 Polycarbonate, 30% Carbon Fiber Reinforced, PTFE Lubed

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Carbon + PTFE Filled

### Material Notes:

Carbon Fiber Reinforced, PTFE Lubricated

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Techmer-ES-Electrafil-J-50CF30TF15-Polycarbonate-30-Carbon-Fiber-Reinforced-PTFE-Lubed.php](http://www.lookpolymers.com/polymer_Techmer-ES-Electrafil-J-50CF30TF15-Polycarbonate-30-Carbon-Fiber-Reinforced-PTFE-Lubed.php)

Physical Properties	Metric	English	Comments
Density	1.42 g/cc	0.0513 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.12 %	0.12 %	24 hrs; ASTM D570
Linear Mold Shrinkage	0.0010 cm/cm @Thickness 3.17 mm	0.0010 in/in @Thickness 0.125 in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	117 MPa	17000 psi	ASTM D638
Elongation at Break	1.7 %	1.7 %	ASTM D638
Flexural Yield Strength	193 MPa	28000 psi	ASTM D790
Flexural Modulus	13.8 GPa	2000 ksi	ASTM D790
Izod Impact, Notched	0.801 J/cm @Thickness 3.17 mm	1.50 ft-lb/in @Thickness 0.125 in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	18.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 $\text{Å}^\circ\text{C}$	10.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 $\text{Å}^\circ\text{F}$	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	149 $\text{Å}^\circ\text{C}$	300 $\text{Å}^\circ\text{F}$	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	143 $\text{Å}^\circ\text{C}$	289 $\text{Å}^\circ\text{F}$	ASTM D648

Electrical Properties	Metric	English	Comments
Electrical Resistivity	10.0 - 100 ohm-cm	10.0 - 100 ohm-cm	ASTM C611
Surface Resistance	1000 - 10000 ohm	1000 - 10000 ohm	ASTM D4496

## **Contact Songhan Plastic Technology Co.,Ltd.**

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