

## Techmer ES Electrablend® PC 04004 FR BK Stainless Steel Filled

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Stainless Steel Fiber

### Material Notes:

Availability: North America Forms: Pellets Filler/Reinforcement: Stainless Steel Fiber Features: Electromagnetic Shielding (EMI) and Flame Retardant Appearance: Black TPCI# 9691124 Information provided by TP Composites, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Techmer-ES-Electrablend-PC-04004-FR-BK-Stainless-Steel-Filled.php](http://www.lookpolymers.com/polymer_Techmer-ES-Electrablend-PC-04004-FR-BK-Stainless-Steel-Filled.php)

| Physical Properties         | Metric                             | English                             | Comments  |
|-----------------------------|------------------------------------|-------------------------------------|-----------|
| Density                     | 1.29 g/cc                          | 0.0466 lb/in <sup>3</sup>           | ASTM D792 |
| Water Absorption            | 0.10 %<br>@Time 86400 sec          | 0.10 %<br>@Time 24.0 hour           | ASTM D570 |
| Linear Mold Shrinkage, Flow | 0.0020 cm/cm<br>@Thickness 3.17 mm | 0.0020 in/in<br>@Thickness 0.125 in | ASTM D955 |

| Mechanical Properties   | Metric                          | English                              | Comments  |
|-------------------------|---------------------------------|--------------------------------------|-----------|
| Tensile Strength, Yield | 51.7 MPa                        | 7500 psi                             | ASTM D638 |
| Elongation at Break     | 5.8 %                           | 5.8 %                                | ASTM D638 |
| Flexural Strength       | 79.3 MPa                        | 11500 psi                            | ASTM D790 |
| Flexural Modulus        | 2.61 GPa                        | 379 ksi                              | ASTM D790 |
| Izod Impact, Notched    | 1.07 J/cm<br>@Thickness 3.17 mm | 2.00 ft-lb/in<br>@Thickness 0.125 in | ASTM D256 |
| Izod Impact, Unnotched  | 4.43 J/cm<br>@Thickness 3.17 mm | 8.30 ft-lb/in<br>@Thickness 0.125 in | ASTM D256 |

| Thermal Properties                          | Metric                                                 | English                                                  | Comments              |
|---------------------------------------------|--------------------------------------------------------|----------------------------------------------------------|-----------------------|
| CTE, linear, Parallel to Flow               | 63.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 35.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ | ASTM D696             |
| Deflection Temperature at 1.8 MPa (264 psi) | 127 $\text{Å}^\circ\text{C}$                           | 260 $\text{Å}^\circ\text{F}$                             | Unannealed; ASTM D648 |
| Flammability, UL94                          | V-0<br>@Thickness 1.50 mm                              | V-0<br>@Thickness 0.0591 in                              |                       |

| Electrical Properties | Metric            | English           | Comments  |
|-----------------------|-------------------|-------------------|-----------|
| Volume Resistivity    | 1.0 - 1000 ohm-cm | 1.0 - 1000 ohm-cm | ASTM D257 |

| Electrical Properties   | Metric         | English        | Comments   |
|-------------------------|----------------|----------------|------------|
| Surface Resistance      | 1.0 * 1000 ohm | 1.0 * 1000 ohm | ASTM D257  |
| Static Decay            | <= 0.10 sec    | <= 0.10 sec    | FTMS 101B  |
| Shielding Effectiveness | 55 dB          | 55 dB          | ASTM D4935 |

## Contact Songhan Plastic Technology Co.,Ltd.

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