

## Techmer ES HiFill® PP 0123 C Polypropylene

Category : Polymer , Thermoplastic , Polypropylene (PP) , Polypropylene Copolymer

### Material Notes:

Availability: North America Forms: Pellets Features: Copolymer and Thermally Conductive Information provided by TP Composites, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Techmer-ES-HiFill-PP-0123-C-Polypropylene.php](http://www.lookpolymers.com/polymer_Techmer-ES-HiFill-PP-0123-C-Polypropylene.php)

| Physical Properties         | Metric                             | English                             | Comments  |
|-----------------------------|------------------------------------|-------------------------------------|-----------|
| Density                     | 1.23 g/cc                          | 0.0444 lb/in <sup>3</sup>           | ASTM D792 |
| Water Absorption            | 0.050 %<br>@Time 86400 sec         | 0.050 %<br>@Time 24.0 hour          | ASTM D570 |
| Linear Mold Shrinkage, Flow | 0.0090 cm/cm<br>@Thickness 3.17 mm | 0.0090 in/in<br>@Thickness 0.125 in | ASTM D955 |

| Mechanical Properties   | Metric                           | English                              | Comments  |
|-------------------------|----------------------------------|--------------------------------------|-----------|
| Hardness, Rockwell R    | 70                               | 70                                   | ASTM D785 |
| Tensile Strength, Yield | 15.2 MPa                         | 2200 psi                             | ASTM D638 |
| Elongation at Break     | 30 %                             | 30 %                                 | ASTM D638 |
| Flexural Strength       | 20.7 MPa                         | 3000 psi                             | ASTM D790 |
| Flexural Modulus        | 1.59 GPa                         | 230 ksi                              | ASTM D790 |
| Izod Impact, Notched    | 0.534 J/cm<br>@Thickness 3.17 mm | 1.00 ft-lb/in<br>@Thickness 0.125 in | ASTM D256 |

| Thermal Properties                          | Metric         | English                 | Comments              |
|---------------------------------------------|----------------|-------------------------|-----------------------|
| CTE, linear, Parallel to Flow               | 39.6 Åµm/m-Å°C | 22.0 Åµin/in-Å°F        | ASTM D696             |
| Thermal Conductivity                        | 1.30 W/m-K     | 9.00 BTU-in/hr-ftÅ²-Å°F | ASTM C177             |
| Deflection Temperature at 0.46 MPa (66 psi) | 79.4 Å°C       | 175 Å°F                 | Unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 51.7 Å°C       | 125 Å°F                 | Unannealed; ASTM D648 |

| Electrical Properties | Metric          | English         | Comments  |
|-----------------------|-----------------|-----------------|-----------|
| Volume Resistivity    | 1.00e+15 ohm-cm | 1.00e+15 ohm-cm | ASTM D257 |

| Dielectric Strength<br>Electrical Properties | 11.8 kV/mm<br>Metric | 300 kV/in<br>English | Method A (Short-Time); ASTM D149<br>Comments |
|----------------------------------------------|----------------------|----------------------|----------------------------------------------|
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## Contact Songhan Plastic Technology Co.,Ltd.

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