

## Techmer ES HiFill<sup>®</sup> PA6 L BK

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Unreinforced

### Material Notes:

Availability: North America Forms: Pellets Additive: Lubricant Features: Lubricated Appearance: Black TPCl# 9356102 Information provided by TP Composites, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Techmer-ES-HiFill-PA6-L-BK.php](http://www.lookpolymers.com/polymer_Techmer-ES-HiFill-PA6-L-BK.php)

| Physical Properties         | Metric                            | English                            | Comments  |
|-----------------------------|-----------------------------------|------------------------------------|-----------|
| Density                     | 1.13 g/cc                         | 0.0408 lb/in <sup>3</sup>          | ASTM D792 |
| Water Absorption            | 1.6 %<br>@Time 86400 sec          | 1.6 %<br>@Time 24.0 hour           | ASTM D570 |
| Linear Mold Shrinkage, Flow | 0.012 cm/cm<br>@Thickness 3.17 mm | 0.012 in/in<br>@Thickness 0.125 in | ASTM D955 |

| Mechanical Properties   | Metric                           | English                               | Comments  |
|-------------------------|----------------------------------|---------------------------------------|-----------|
| Hardness, Rockwell R    | 119                              | 119                                   | ASTM D785 |
| Tensile Strength, Yield | 77.9 MPa                         | 11300 psi                             | ASTM D638 |
| Elongation at Break     | 20 %                             | 20 %                                  | ASTM D638 |
| Flexural Strength       | 105 MPa                          | 15200 psi                             | ASTM D790 |
| Flexural Modulus        | 2.83 GPa                         | 410 ksi                               | ASTM D790 |
| Izod Impact, Notched    | 0.481 J/cm<br>@Thickness 3.17 mm | 0.900 ft-lb/in<br>@Thickness 0.125 in | ASTM D256 |

| Thermal Properties                          | Metric   | English  | Comments              |
|---|--|--|-----------------------|
| CTE, linear, Parallel to Flow               | 82.8 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 46.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ | ASTM D696             |
| Deflection Temperature at 0.46 MPa (66 psi) | 178 $\text{Å}^\circ\text{C}$                           | 352 $\text{Å}^\circ\text{F}$                             | Unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 65.0 $\text{Å}^\circ\text{C}$                          | 149 $\text{Å}^\circ\text{F}$                             | Unannealed; ASTM D648 |

| Electrical Properties | Metric          | English         | Comments                         |
|-----------------------|-----------------|-----------------|----------------------------------|
| Volume Resistivity    | 1.00e+13 ohm-cm | 1.00e+13 ohm-cm | ASTM D257                        |
| Dielectric Strength   | 18.1 kV/mm      | 460 kV/in       | Method A (Short-Time); ASTM D149 |

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

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