

## CP-Polymer-Technik Wellamid® 6000 CF 18 HWCP 18% Carbon Fiber Nylon 6, Heat Stabilized, Dry

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Carbon Fiber Filled

### Material Notes:

Information provided by CP-Polymer-Technik GmbH & Co. KG

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_CP-Polymer-Technik-Wellamid-6000-CF-18-HWCP-18-Carbon-Fiber-Nylon-6-Heat-Stabilized-Dry.php](http://www.lookpolymers.com/polymer_CP-Polymer-Technik-Wellamid-6000-CF-18-HWCP-18-Carbon-Fiber-Nylon-6-Heat-Stabilized-Dry.php)

| Physical Properties                | Metric                             | English                             | Comments              |
|------------------------------------|------------------------------------|-------------------------------------|-----------------------|
| Density                            | 1.25 g/cc                          | 0.0452 lb/in <sup>3</sup>           | ISO 1183              |
| Moisture Absorption at Equilibrium | 2.0 - 2.5 %                        | 2.0 - 2.5 %                         | 23°C/50%RH; DIN 53495 |
| Linear Mold Shrinkage              | 0.0030 cm/cm<br>@Thickness 4.00 mm | 0.0030 in/in<br>@Thickness 0.157 in |                       |
| Linear Mold Shrinkage, Transverse  | 0.0090 cm/cm<br>@Thickness 4.00 mm | 0.0090 in/in<br>@Thickness 0.157 in |                       |

| Mechanical Properties     | Metric  | English  | Comments          |
|---------------------------|---|--|-------------------|
| Tensile Strength at Break | 160 MPa   | 23200 psi  | 5 mm/min; ISO 527 |
| Elongation at Break       | 2.0 %   | 2.0 %  | 5 mm/min; ISO 527 |
| Tensile Modulus           | 13.0 GPa  | 1890 ksi   | ISO 527           |
| Flexural Modulus          | 11.5 GPa  | 1670 ksi   | DIN 52457         |
| Charpy Impact Unnotched   | 4.00 J/cm <sup>2</sup><br>@Temperature 23.0 °C  | 19.0 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F | ISO 179           |
| Charpy Impact, Notched    | 0.600 J/cm <sup>2</sup><br>@Temperature 23.0 °C | 2.86 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F | ISO 179           |

| Thermal Properties                          | Metric                                      | English                                      | Comments  |
|---|---|--|-----------|
| CTE, linear                                 | 25.0 µm/m-°C<br>@Temperature 23.0 - 80.0 °C | 13.9 µin/in-°F<br>@Temperature 73.4 - 176 °F | DIN 53752 |
| Melting Point                               | 215 °C                                      | 419 °F                                       | Kofler    |
| Deflection Temperature at 0.46 MPa (66 psi) | 215 °C                                      | 419 °F                                       | ISO 179   |

| Thermal Properties    | Metric             | English              | Comments       |
|-----------------------|--------------------|----------------------|----------------|
| Vicat Softening Point | 200 °C             | 392 °F               | 50 N; ISO 306  |
| Flammability, UL94    | HB                 | HB                   | Stufe; IEC 707 |
|                       | @Thickness 1.60 mm | @Thickness 0.0630 in |                |
|                       | HB                 | HB                   | Stufe; IEC 707 |
|                       | @Thickness 3.20 mm | @Thickness 0.126 in  |                |

| Electrical Properties | Metric       | English      | Comments |
|-----------------------|--------------|--------------|----------|
| Volume Resistivity    | <= 10 ohm-cm | <= 10 ohm-cm | IEC 93   |
| Surface Resistance    | <= 20 ohm    | <= 20 ohm    | ISO 3915 |

| Processing Properties | Metric        | English      | Comments |
|-----------------------|---------------|--------------|----------|
| Melt Temperature      | 260 - 290 °C  | 500 - 554 °F |          |
| Mold Temperature      | 70.0 - 100 °C | 158 - 212 °F |          |

| Descriptive Properties | Value          | Comments |
|------------------------|----------------|----------|
| Back Pressure          | Low            |          |
| Holding Pressure       | High           |          |
| Injection Speed        | Medium to High |          |
| Screw Speed            | High           |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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