

## Solvay Specialty Polymers Omnix® 4050 Polyamide, High Performance (HPPA) (Dry)

Category : Polymer , Thermoplastic , Nylon

### Material Notes:

Omnix® 4050 is a 50% glass-fiber reinforced, high-performance polyamide (HPPA). It is particularly suited for replacing die-cast metal in a variety of mechanical applications and components used in automotive, consumer goods, E/E, and construction. Components injection molded from Omnix® 4050 display exceptional mechanical properties and excellent surface appearance even after moisture adsorption. Features: Fast Molding Cycle; Good Dimensional Stability; Good Impact Resistance; Good Surface Finish; High Flow; High Stiffness; High Strength; Hot Water Moldability; Paintable Uses: Automotive Electronics; Electrical/Electronic Applications; Machinery Maintenance/Repair Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Omnix-4050-Polyamide-High-Performance-HPPA-Dry.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Omnix-4050-Polyamide-High-Performance-HPPA-Dry.php)

| Physical Properties               | Metric       | English                   | Comments  |
|-----------------------------------|--------------|---------------------------|-----------|
| Density                           | 1.59 g/cc    | 0.0574 lb/in <sup>3</sup> | ASTM D792 |
| Linear Mold Shrinkage, Flow       | 0.0010 cm/cm | 0.0010 in/in              | ISO 294-4 |
| Linear Mold Shrinkage, Transverse | 0.0050 cm/cm | 0.0050 in/in              | ISO 294-4 |

| Mechanical Properties        | Metric                 | English                    | Comments  |
|------------------------------|------------------------|----------------------------|-----------|
| Tensile Strength, Yield      | 245 MPa                | 35500 psi                  | ISO 527-2 |
| Elongation at Break          | 2.4 %                  | 2.4 %                      | ISO 527-2 |
| Tensile Modulus              | 17.0 GPa               | 2470 ksi                   | ISO 527-2 |
| Flexural Strength            | 350 MPa                | 50800 psi                  | ISO 178   |
| Flexural Modulus             | 15.0 GPa               | 2180 ksi                   | ISO 178   |
| Izod Impact, Notched (ISO)   | 14.0 kJ/m <sup>2</sup> | 6.66 ft-lb/in <sup>2</sup> | ISO 180   |
| Izod Impact, Unnotched (ISO) | 90.0 kJ/m <sup>2</sup> | 42.8 ft-lb/in <sup>2</sup> | ISO 180   |

| Thermal Properties | Metric                    | English                    | Comments    |
|--------------------|---------------------------|----------------------------|-------------|
| Melting Point      | 260 °C                    | 500 °F                     | ISO 11357-3 |
| Flammability, UL94 | HB<br>@Thickness 0.800 mm | HB<br>@Thickness 0.0315 in |             |

| Processing Properties   | Metric | English | Comments |
|-------------------------|--------|---------|----------|
| Rear Barrel Temperature |        |         |          |

| Processing Properties    | 250 Â°C<br>Metric                      | 482 Â°F<br>English                | Comments |
|--------------------------|--|-----------------------------------|----------|
| Front Barrel Temperature | 285 Â°C                                | 545 Â°F                           |          |
| Melt Temperature         | 275 - 290 Â°C                          | 527 - 554 Â°F                     |          |
| Mold Temperature         | 80.0 - 120 Â°C                         | 176 - 248 Â°F                     |          |
| Drying Temperature       | 80.0 Â°C<br>@Time 14400 - 43200<br>sec | 176 Â°F<br>@Time 4.00 - 12.0 hour |          |

| Descriptive Properties | Value  | Comments  |
|------------------------|--|-----------|
| Availability           | Asia Pacific   |           |
|                        | Europe   |           |
|                        | North America  |           |
| Color                  | Black; Natural   |           |
| Form                   | Pellets  |           |
| Part Marking Code      | >(PA+PPA)-GF50<  | ISO 11469 |
| Processing Technique   | Injection Molding; Water-Heated Mold Injection Molding |           |
| RoHS Compliance        | RoHS Compliant   |           |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China