

## Unitika M1030E PA6, Dry

Category : Polymer , Thermoplastic , Nylon , Nylon 6

### Material Notes:

Nano composite nylon Information provided by Unitika Ltd.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Unitika-M1030E-PA6-Dry.php](http://www.lookpolymers.com/polymer_Unitika-M1030E-PA6-Dry.php)

| Physical Properties                | Metric             | English                   | Comments  |
|------------------------------------|--------------------|---------------------------|-----------|
| Density                            | 1.15 g/cc          | 0.0415 lb/in <sup>3</sup> | ASTM D792 |
| Water Absorption                   | 0.70 %             | 0.70 %                    |           |
|                                    | @Time 86400 sec    | @Time 24.0 hour           |           |
| Moisture Absorption at Equilibrium | 2.8 %              | 2.8 %                     | 50% RH    |
| Linear Mold Shrinkage, Flow        | 0.0080 cm/cm       | 0.0080 in/in              | ASTM D955 |
|                                    | @Thickness 3.20 mm | @Thickness 0.126 in       |           |
| Linear Mold Shrinkage, Transverse  | 0.010 cm/cm        | 0.010 in/in               | ASTM D955 |
|                                    | @Thickness 3.20 mm | @Thickness 0.126 in       |           |

| Mechanical Properties     | Metric     | English        | Comments  |
|---------------------------|------------|----------------|-----------|
| Tensile Strength at Break | 96.0 MPa   | 13900 psi      | ASTM D638 |
| Elongation at Break       | 4.0 %      | 4.0 %          | ASTM D638 |
| Flexural Strength         | 155 MPa    | 22500 psi      | ASTM D790 |
| Flexural Modulus          | 5.20 GPa   | 754 ksi        | ASTM D790 |
| Izod Impact, Notched      | 0.300 J/cm | 0.562 ft-lb/in | ASTM D256 |

| Thermal Properties                          | Metric                                   | English                                    | Comments  |
|---|--|--|-----------|
| CTE, linear                                 | 49.0 $\mu\text{m}/\text{m}\cdot\text{C}$ | 27.2 $\mu\text{in}/\text{in}\cdot\text{F}$ | ASTM D696 |
| Deflection Temperature at 0.46 MPa (66 psi) | 197 $^{\circ}\text{C}$                   | 387 $^{\circ}\text{F}$                     | ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 164 $^{\circ}\text{C}$                   | 327 $^{\circ}\text{F}$                     | ASTM D648 |

| Electrical Properties | Metric          | English         | Comments  |
|-----------------------|-----------------|-----------------|-----------|
| Volume Resistivity    | 1.00e+13 ohm-cm | 1.00e+13 ohm-cm | ASTM D257 |

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

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