# BASF Ultramid® KR 4357 G6 BK 00564 30% Glass Filled PA6/6T (Dry)

**Category :** Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 30% Glass Fiber Filled

**Material Notes:**

Description: 30% glass-fiber reinforced, impact-modified product for injection-molding; high toughness, strength and stiffness, low water absorption, high melting point (295°C [563°F]). The mechanical properties remain constant after moisture absorption up to a temperature of 60°C [140°F], for instance, for automotive plug-in connectors.Information provided by BASF

Order this product through the following link:
http://www.lookpolymers.com/polymer_BASF-Ultramid-KR-4357-G6-BK-00564-30-Glass-Filled-PA66T-Dry.php

| Physical Properties | Metric | English | Comments |
|---|---|---|---|
| Bulk Density | 0.500 - 0.800 g/cc | 0.0181 - 0.0289 lb/in³ | |
| Density | 1.37 g/cc | 0.0495 lb/in³ | ISO 1183 |
| Water Absorption | 4.0 - 5.0 % | 4.0 - 5.0 % | Saturation; ISO 62 |
| Moisture Absorption at Equilibrium | 0.60 - 1.0 % | 0.60 - 1.0 % | 23°C; 50% RH; ISO 62 |
| Viscosity Measurement | 130 | 130 | ISO 307 |
| Linear Mold Shrinkage | 0.0060 cm/cm | 0.0060 in/in | restricted |
| Linear Mold Shrinkage, Flow | 0.0036 cm/cm | 0.0036 in/in | TM=320°C, TW=100°C |
| | 0.0040 cm/cm | 0.0040 in/in | ISO 2577 |
| Linear Mold Shrinkage, Transverse | 0.010 cm/cm | 0.010 in/in | ISO 2577 |

| Mechanical Properties | Metric | English | Comments |
|---|---|---|---|
| Tensile Strength, Yield | 165 MPa | 23900 psi | 50 mm/min; ISO 527-1/-2 |
| Elongation at Yield | 3.5 % | 3.5 % | 50 mm/min; ISO 527-1/-2 |
| Modulus of Elasticity | 9.30 GPa | 1350 ksi | ISO 527-1/-2 |
| Izod Impact, Notched (ISO) | 23.0 kJ/m² @Temperature 23.0 °C | 10.9 ft-lb/in² @Temperature 73.4 °F | ISO 180/A |
| Charpy Impact Unnotched | 9.50 J/cm² @Temperature 23.0 °C | 45.2 ft-lb/in² @Temperature 73.4 °F | ISO 179 |
| Charpy Impact, Notched | 1.90 J/cm² @Temperature 23.0 °C | 9.04 ft-lb/in² @Temperature 73.4 °F | ISO 179/1eA |

| Thermal Properties | Metric | English | Comments |
|---|---|---|---|

| Thermal Properties | Metric | English | Comments |
|---|---|---|---|
| CTE, linear, Parallel to Flow | 50.0 - 60.0 µm/m-°C<br>@Temperature 23.0 - 80.0 °C | 27.8 - 33.3 µin/in-°F<br>@Temperature 73.4 - 176 °F | DIN 11359-1/-2 |
| CTE, linear, Transverse to Flow | 25.0 µm/m-°C<br>@Temperature 23.0 - 80.0 °C | 13.9 µin/in-°F<br>@Temperature 73.4 - 176 °F | DIN 11359-1/-2 |
| Thermal Conductivity | 0.250 W/m-K | 1.74 BTU-in/hr-ft²-°F | DIN 52612 |
| Melting Point | 295 °C | 563 °F | DIN 53765 |
| Maximum Service Temperature, Air | 130 °C | 266 °F | for 50% loss of tensile strength after 20000hr |
| | 160 °C | 320 °F | for 50% loss of tensile strength after 5000hr |
| | 270 °C | 518 °F | |
| Deflection Temperature at 1.8 MPa (264 psi) | 270 °C | 518 °F | ISO 75-1/-2 |
| Decomposition Temperature | >= 350 °C | >= 662 °F | |
| Flammability, UL94 | HB<br>@Thickness 1.60 mm | HB<br>@Thickness 0.0630 in | |

| Electrical Properties | Metric | English | Comments |
|---|---|---|---|
| Volume Resistivity | 1.00e+14 ohm-cm | 1.00e+14 ohm-cm | IEC 60093 |
| Dielectric Constant | 4.3<br>@Frequency 1.00 Hz | 4.3<br>@Frequency 1.00 Hz | IEC 60250 |
| Dissipation Factor | 0.030<br>@Frequency 1.00e+6 Hz | 0.030<br>@Frequency 1.00e+6 Hz | IEC 60250 |
| Comparative Tracking Index | 600 V | 600 V | Test solution A; IEC 60112 |

| Processing Properties | Metric | English | Comments |
|---|---|---|---|
| Processing Temperature | 80.0 °C | 176 °F | Hopper Throat |
| Zone 1 | 300 °C | 572 °F | Feed Zone |
| Zone 2 | 310 °C | 590 °F | Compression |
| Zone 3 | 320 °C | 608 °F | Metering-zone |
| Zone 4 | 320 °C | 608 °F | Nozzle |

| Processing Properties | Metric | English | Comments |
|---|---|---|---|
| Melt Temperature | 310 - 330 °C | 590 - 626 °F | Injection-molding/Extrusion |
| | 320 °C | 608 °F | Optimal |
| Mold Temperature | 80.0 - 120 °C | 176 - 248 °F | Injection-molding |
| | 100 °C | 212 °F | Optimal |
| Drying Temperature | 110 °C | 230 °F | |
| Dry Time | 8 hour | 8 hour | |
| Moisture Content | <= 0.030 % | <= 0.030 % | Optimal |
| | <= 0.15 % | <= 0.15 % | |

| Descriptive Properties | Value | Comments |
|---|---|---|
| Color | BK 00564 | |
| Commercial Status | Europe | |
| Ignition Temperature | >470°C | ASTM D1929 |
| Peripheral screw speed | <0.3 m/s | |

## Contact Songhan Plastic Technology Co.,Ltd.

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