

## BASF Ultramid® B3UG4 Grey 22975 20% Glass Filled PA66 FR (Conditioned)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 20% Glass Fiber Filled

### Material Notes:

Description: Halogen-free and phosphorus free flame retardant injection-molding grade with outstanding free-flow properties, good electrical properties and low smoke density; resistant to glow wire test up to 960 °C. Information provided by BASF

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Ultramid-B3UG4-Grey-22975-20-Glass-Filled-PA66-FR-Conditioned.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-B3UG4-Grey-22975-20-Glass-Filled-PA66-FR-Conditioned.php)

| Physical Properties                | Metric                                                 | English                                                | Comments             |
|------------------------------------|--------------------------------------------------------|--------------------------------------------------------|----------------------|
| Bulk Density                       | 0.500 - 0.800 g/cc                                     | 0.0181 - 0.0289 lb/in³                                 |                      |
| Density                            | 1.31 g/cc                                              | 0.0473 lb/in³                                          | ISO 1183             |
| Moisture Absorption at Equilibrium | 2.0 - 2.4 %                                            | 2.0 - 2.4 %                                            | 23°C; 50% RH; ISO 62 |
| Linear Mold Shrinkage              | 0.0060 cm/cm                                           | 0.0060 in/in                                           |                      |
| Linear Mold Shrinkage, Flow        | 0.0080 cm/cm                                           | 0.0080 in/in                                           | ISO 2577             |
| Linear Mold Shrinkage, Transverse  | 0.0080 cm/cm                                           | 0.0080 in/in                                           | ISO 2577             |
| Melt Flow                          | 157.2 g/10 min<br>@Load 5.00 kg,<br>Temperature 275 °C | 157.2 g/10 min<br>@Load 11.0 lb,<br>Temperature 527 °F | ISO 1133             |

| Mechanical Properties   | Metric                             | English                                | Comments                |
|-------------------------|------------------------------------|----------------------------------------|-------------------------|
| Tensile Strength, Yield | 50.0 MPa                           | 7250 psi                               | 50 mm/min; ISO 527-1/-2 |
| Elongation at Yield     | 6.0 %                              | 6.0 %                                  | 50 mm/min; ISO 527-1/-2 |
| Modulus of Elasticity   | 3.00 GPa                           | 435 ksi                                | ISO 527-1/-2            |
| Charpy Impact Unnotched | 11.0 J/cm²<br>@Temperature 23.0 °C | 52.3 ft-lb/in²<br>@Temperature 73.4 °F | ISO 179/1eU             |

| Thermal Properties            | Metric                       | English                        | Comments |
|-------------------------------|------------------------------|--------------------------------|----------|
| CTE, linear, Parallel to Flow | >= 90.0 µm/m-°C              | >= 50.0 µin/in-°F              |          |
| Melting Point                 | 220 °C                       | 428 °F                         | ISO 3146 |
| Decomposition Temperature     | >= 300 °C                    | >= 572 °F                      |          |
| UL RTI, Electrical            | 140 °C<br>@Thickness 1.50 mm | 284 °F<br>@Thickness 0.0591 in | UL 746B  |

| <small>Oxygen Index</small><br>Thermal Properties | <small>29 %</small><br>Metric | <small>29 %</small><br>English  | <small>ISO 4589-2</small><br>Comments |
|---------------------------------------------------|-------------------------------|---------------------------------|---------------------------------------|
| Glow Wire Test                                    | 960 °C<br>@Thickness 1.00 mm  | 1760 °F<br>@Thickness 0.0394 in | IEC 60695-2-12                        |

| Electrical Properties      | Metric                             | English                             | Comments                   |
|----------------------------|------------------------------------|-------------------------------------|----------------------------|
| Volume Resistivity         | 1.00e+11 ohm-cm                    | 1.00e+11 ohm-cm                     | IEC 60093                  |
| Surface Resistance         | 1.00e+10 ohm                       | 1.00e+10 ohm                        | IEC 60093                  |
| Comparative Tracking Index | 600 V                              | 600 V                               | Test solution A; IEC 60112 |
| Hot Wire Ignition, HWI     | 2.0 sec<br>@Thickness >=1.50 mm    | 2.0 sec<br>@Thickness >=0.0591 in   | ASTM D3874-88              |
| High Amp Arc Ignition, HAI | 0.00 arcs<br>@Thickness >=0.700 mm | 0.00 arcs<br>@Thickness >=0.0276 in | UL 746C                    |

| Processing Properties  | Metric          | English         | Comments                    |
|------------------------|-----------------|-----------------|-----------------------------|
| Processing Temperature | 80.0 °C         | 176 °F          | Hopper Throat               |
| Zone 1                 | 250 °C          | 482 °F          | Feed Zone                   |
| Zone 2                 | 260 °C          | 500 °F          | Compression                 |
| Zone 3                 | 270 °C          | 518 °F          | Metering-zone               |
| Zone 4                 | 270 °C          | 518 °F          | Nozzle                      |
| Melt Temperature       | 250 - 275 °C    | 482 - 527 °F    | Injection-molding/Extrusion |
|                        | 270 °C          | 518 °F          | Optimal                     |
| Mold Temperature       | 80.0 °C         | 176 °F          | Optimal                     |
|                        | 80.0 - 90.0 °C  | 176 - 194 °F    | Injection-molding           |
| Drying Temperature     | 80.0 °C         | 176 °F          |                             |
| Dry Time               | 4 hour          | 4 hour          |                             |
| Moisture Content       | 0.030 - 0.060 % | 0.030 - 0.060 % | Optimal                     |
|                        | <= 0.15 %       | <= 0.15 %       |                             |

| Descriptive Properties | Value      | Comments |
|------------------------|------------|----------|
| Color                  | Grey 22975 |          |

| Descriptive Properties<br>Commercial Status | Value<br>Europe | Comments   |
|---------------------------------------------|-----------------|------------|
| Ignition Temperature                        | >350°C          | ASTM D1929 |
| Peripheral screw speed                      | < 0.3 m/s       |            |

## 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