

## BASF Ultramid® FFree B3U31G4 20% Glass Filled PA66 FR (Dry)

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-FFree-B3U31G4-20-Glass-Filled-PA66-FR-Dry.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-FFree-B3U31G4-20-Glass-Filled-PA66-FR-Dry.php)

Physical Properties	Metric	English	Comments
Density	1.31 g/cc	0.0473 lb/in <sup>3</sup>	ISO 1183
Water Absorption	6.6 - 7.2 %	6.6 - 7.2 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	2.0 - 2.4 %	2.0 - 2.4 %	23°C; 50% RH; ISO 62
Melt Flow	131 g/10 min @Load 5.00 kg, Temperature 275 °C	131 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	90.0 MPa	13100 psi	50 mm/min; ISO 527-1/-2
Elongation at Yield	2.8 %	2.8 %	50 mm/min; ISO 527-1/-2
Modulus of Elasticity	6.10 GPa	885 ksi	ISO 527-1/-2
Flexural Modulus	5.70 GPa	827 ksi	ISO 178
Izod Impact, Notched (ISO)	3.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	1.43 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180/A
	3.50 kJ/m <sup>2</sup> @Temperature 23.0 °C	1.67 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180/A
Charpy Impact Unnotched	2.50 J/cm <sup>2</sup> @Temperature -30.0 °C	11.9 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
	3.00 J/cm <sup>2</sup> @Temperature 23.0 °C	14.3 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.300 J/cm <sup>2</sup> @Temperature -30.0 °C	1.43 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eA
	0.350 J/cm <sup>2</sup>	1.67 ft-lb/in <sup>2</sup>	ISO 179/1eA

Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments
<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
CTE, linear, Parallel to Flow	50.0 - 55.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ @Temperature 23.0 - 80.0 °C	27.8 - 30.6 $\mu\text{in}/\text{in}\cdot\text{°F}$ @Temperature 73.4 - 176 °F	DIN 11359-1/-2
CTE, linear, Transverse to Flow	50.0 - 60.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ @Temperature 23.0 - 80.0 °C	27.8 - 33.3 $\mu\text{in}/\text{in}\cdot\text{°F}$ @Temperature 73.4 - 176 °F	DIN 11359-1/-2
Melting Point	220 °C	428 °F	DIN 53765
Deflection Temperature at 0.46 MPa (66 psi)	210 °C	410 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	165 °C	329 °F	ISO 75-1/-2
Flammability, UL94	V-2 @Thickness $\geq 0.710$ mm	V-2 @Thickness $\geq 0.0280$ in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Comparative Tracking Index	525 V	525 V	Test solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	250 - 275 °C	482 - 527 °F	Injection-molding/Extrusion
Mold Temperature	80.0 - 90.0 °C	176 - 194 °F	Injection-molding

Descriptive Properties	Value	Comments
Commercial Status	Europe	

## Contact Songhan Plastic Technology Co.,Ltd.

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