

## BASF Ultramid® B3EG5 25% Glass Filled PA6 (Dry)

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

### Material Notes:

Description: 25% glass-fiber reinforced injection-molding grade for industrial articles and electrical insulating parts  
Information provided by BASF

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Ultramid-B3EG5-25-Glass-Filled-PA6-Dry.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-B3EG5-25-Glass-Filled-PA6-Dry.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.500 - 0.800 g/cc	0.0181 - 0.0289 lb/in <sup>3</sup>	
Density	1.32 g/cc	0.0477 lb/in <sup>3</sup>	ISO 1183
Water Absorption	6.8 - 7.4 %	6.8 - 7.4 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	2.1 - 2.5 %	2.1 - 2.5 %	23°C; 50% RH; ISO 62
Viscosity Measurement	140	140	ISO 307
Linear Mold Shrinkage	0.0035 cm/cm	0.0035 in/in	restricted
Melt Flow	72.6 g/10 min @Load 5.00 kg, Temperature 275 °C	72.6 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	160 MPa	23200 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	8.00 GPa	1160 ksi	ISO 527-1/-2
Flexural Strength	220 MPa	31900 psi	at max force; ISO 178
Flexural Modulus	7.40 GPa	1070 ksi	ISO 178
Izod Impact, Notched (ISO)	12.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	5.71 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180/A
Charpy Impact Unnotched	7.50 J/cm <sup>2</sup> @Temperature -30.0 °C	35.7 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
	8.00 J/cm <sup>2</sup> @Temperature 23.0 °C	38.1 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
	1.00 J/cm <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	

Charpy Impact, Notched Mechanical Properties	Metric @Temperature -30.0 °C	English @Temperature -22.0 °F	ISO 179/1eA Comments
	1.20 J/cm <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 - 25.0 μm/m-°C @Temperature 23.0 - 80.0 °C	11.1 - 13.9 μin/in-°F @Temperature 73.4 - 176 °F	DIN 11359-1/-2
CTE, linear, Transverse to Flow	60.0 - 70.0 μm/m-°C @Temperature 23.0 - 80.0 °C	33.3 - 38.9 μin/in-°F @Temperature 73.4 - 176 °F	DIN 11359-1/-2
Specific Heat Capacity	1.50 J/g-°C	0.359 BTU/lb-°F	
Thermal Conductivity	0.350 W/m-K	2.43 BTU-in/hr-ft <sup>2</sup> -°F	DIN 52612
Melting Point	220 °C	428 °F	DIN 53765
Maximum Service Temperature, Air	135 °C	275 °F	for 50% loss of tensile strength after 20000hr
	165 °C	329 °F	for 50% loss of tensile strength after 5000hr
	200 °C	392 °F	
Deflection Temperature at 0.46 MPa (66 psi)	220 °C	428 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	210 °C	410 °F	ISO 75-1/-2
Decomposition Temperature	>= 310 °C	>= 590 °F	
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093
Dielectric Constant	3.8 @Frequency 1.00 Hz	3.8 @Frequency 1.00 Hz	IEC 60250
Dissipation Factor	0.025 @Frequency 1.00e+6 Hz	0.025 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	575 V	575 V	Test solution A; IEC 60112

Electrical Properties	Metric	English	Comments
Processing Properties	Metric	English	Comments
Processing Temperature	80.0 °C	176 °F	Hopper Throat
Zone 1	260 °C	500 °F	Feed Zone
Zone 2	270 °C	518 °F	Compression
Zone 3	280 °C	536 °F	Metering-zone
Zone 4	280 °C	536 °F	Nozzle
Melt Temperature	270 - 290 °C	518 - 554 °F	Injection-molding/Extrusion
	280 °C	536 °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	

Descriptive Properties	Value	Comments
Commercial Status	Europe	
Ignition Temperature	>400°C	ASTM D129
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