

## BASF Ultramid® B3EG7 35% Glass Filled PA6 (Conditioned)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 40% Glass Fiber Filled

### Material Notes:

Description: 35% 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-B3EG7-35-Glass-Filled-PA6-Conditioned.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-B3EG7-35-Glass-Filled-PA6-Conditioned.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.500 - 0.800 g/cc	0.0181 - 0.0289 lb/in <sup>3</sup>	
Density	1.41 g/cc	0.0509 lb/in <sup>3</sup>	ISO 1183
Water Absorption	5.9 - 6.5 %	5.9 - 6.5 %	ISO 62
Moisture Absorption at Equilibrium	>= 2.0 %	>= 2.0 %	50% RH
	1.8 - 2.2 %	1.8 - 2.2 %	ISO 62
	>= 6.2 %	>= 6.2 %	Saturation
Viscosity Measurement	140	140	ISO 307
Linear Mold Shrinkage	0.0035 cm/cm	0.0035 in/in	
Melt Flow	63.45 g/10 min @Load 5.00 kg, Temperature 275 °C	63.45 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	130 MPa	18900 psi	ISO 527-1/-2
Elongation at Break	7.0 %	7.0 %	ISO 527-1/-2
Tensile Modulus	7.20 GPa	1040 ksi	ISO 527-1/-2
Flexural Strength	200 MPa	29000 psi	ISO 178
Flexural Modulus	6.30 GPa	914 ksi	ISO 178
Izod Impact, Notched (ISO)	27.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	12.8 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180/1A
Charpy Impact Unnotched	11.0 J/cm <sup>2</sup> @Temperature 23.0 °C	52.3 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
	3.30 J/cm <sup>2</sup>	15.7 ft-lb/in <sup>2</sup>	

Charpy Impact, Notched Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	ISO 179/1eA Comments
Tensile Creep Modulus, 1000 hours	3300 MPa @Strain <=0.500 %	479000 psi @Strain <=0.500 %	ISO 899-1

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.360 W/m-K	2.50 BTU-in/hr-ft <sup>2</sup> -°F	DIN 52612-1
Melting Point	220 °C	428 °F	ISO 11357-1/-3
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	
Decomposition Temperature	>= 300 °C	>= 572 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+10 ohm-cm	1.00e+10 ohm-cm	IEC 60093
Surface Resistance	1.00e+10 ohm	1.00e+10 ohm	IEC 60093
Dielectric Constant	6.2 @Frequency 1.00e+6 Hz	6.2 @Frequency 1.00e+6 Hz	IEC 60250
Dissipation Factor	0.19 @Frequency 1.00e+6 Hz	0.19 @Frequency 1.00e+6 Hz	IEC 60250
	0.19 @Frequency 100 Hz	0.19 @Frequency 100 Hz	IEC 60250
Comparative Tracking Index	575 V	575 V	Test Solution A; IEC 60112

Processing Properties	Metric	English	Comments
Processing Temperature	80.0 °C	176 °F	Hopper Throat
Zone 1	260 °C	500 °F	Feed Zone
Zone 2	370 °C	698 °F	Compression
Zone 3	280 °C	536 °F	Metering-zone
Zone 4	280 °C	536 °F	Nozzle

Processing Properties	Metric	English	Comments
	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 and North America	
Ignition Temperature	>400°C	ASTM D1929
Peripheral screw speed	< 0.3 m/s	

## Contact Songhan Plastic Technology Co.,Ltd.

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