

BASF Ultramid® B35EG3 15% Glass Filled PA6 (Conditioned)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 20% Glass Fiber Filled

Material Notes:

Description: 15% glass-fiber reinforced injection-molding grade for gIT applications such as, for example, steering column switches, vehicle mirror housings and the wheels of mountain bikes. Information provided by BASF

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultramid-B35EG3-15-Glass-Filled-PA6-Conditioned.php

Physical Properties	Metric	English	Comments
Bulk Density	0.500 - 0.800 g/cc	0.0181 - 0.0289 lb/in ³	
Density	1.23 g/cc	0.0444 lb/in ³	ISO 1183
Water Absorption	7.7 - 8.3 %	7.7 - 8.3 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	2.3 - 2.9 %	2.3 - 2.9 %	23°C; 50% RH; ISO 62
Viscosity Measurement	170	170	ISO 307
Linear Mold Shrinkage	0.0055 cm/cm	0.0055 in/in	restricted
Melt Flow	67.65 g/10 min @Load 5.00 kg, Temperature 275 °C	67.65 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	70.0 MPa	10200 psi	50 mm/min; ISO 527-1/-2
Elongation at Yield	18 %	18 %	50 mm/min; ISO 527-1/-2
Modulus of Elasticity	3.50 GPa	508 ksi	ISO 527-1/-2
Flexural Strength	100 MPa	14500 psi	at max force; ISO 178
Flexural Modulus	2.50 GPa	363 ksi	ISO 178
Izod Impact, Notched (ISO)	16.0 kJ/m ² @Temperature 23.0 °C	7.61 ft-lb/in ² @Temperature 73.4 °F	ISO 180/A
Charpy Impact Unnotched	10.5 J/cm ² @Temperature 23.0 °C	50.0 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	2.50 J/cm ² @Temperature 23.0 °C	11.9 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA
	2100 MPa	305000 psi	

Tensile Creep Modulus, 1000 hours Mechanical Properties	Metric @ Strain <=0.500 %	English @ Strain <=0.500 %	ISO 899-1 Comments
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Thermal Properties	Metric	English	Comments
Specific Heat Capacity	1.60 J/g-°C	0.382 BTU/lb-°F	
Thermal Conductivity	0.340 W/m-K	2.36 BTU-in/hr-ft²-°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	

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	7.0 @Frequency 1.00 Hz	7.0 @Frequency 1.00 Hz	IEC 60250
Dissipation Factor	0.24 @Frequency 1.00e+6 Hz	0.24 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	550 V	550 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	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
	290 °C	554 °F	Optimal
Mold Temperature	80.0 °C	176 °F	Optimal
	80.0 - 90.0 °C	176 - 194 °F	Injection-molding

Processing Properties	Metric	English	Comments
Dry Time	4 hour	4 hour	

Descriptive Properties	Value	Comments
Commercial Status	Europe	
Peripheral screw speed	< 0.3 m/s	

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