

BASF Ultramid® B3M6 BK 23213 30% Mineral Filled PA6 (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 30% Mineral Filled

Material Notes:

Description: 30% Mineral-filled injection molding grade for high impact industrial items having very high dimensional stability, such as automobile wheel covers. Information provided by BASF

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultramid-B3M6-BK-23213-30-Mineral-Filled-PA6-Dry.php

Physical Properties	Metric	English	Comments
Bulk Density	0.500 - 0.800 g/cc	0.0181 - 0.0289 lb/in ³	
Density	1.36 g/cc	0.0491 lb/in ³	ISO 1183
Water Absorption	5.9 - 6.5 %	5.9 - 6.5 %	ISO 62
Moisture Absorption at Equilibrium	2.2 - 2.6 %	2.2 - 2.6 %	ISO 62
Viscosity Measurement	145	145	ISO 307
Linear Mold Shrinkage	0.0075 cm/cm	0.0075 in/in	
Melt Flow	81.6 g/10 min @Load 5.00 kg, Temperature 275 °C	81.6 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	75.0 MPa	10900 psi	ISO 527-1/-2
Elongation at Break	12 %	12 %	ISO 527-1/-2
Tensile Modulus	4.60 GPa	667 ksi	ISO 527-1/-2
Flexural Strength	125 MPa	18100 psi	ISO 178
Flexural Modulus	4.00 GPa	580 ksi	ISO 178
Izod Impact, Notched (ISO)	6.50 kJ/m ² @Temperature 23.0 °C	3.09 ft-lb/in ² @Temperature 73.4 °F	ISO 180/1A
Charpy Impact Unnotched	10.0 J/cm ² @Temperature -30.0 °C	47.6 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	19.0 J/cm ² @Temperature 23.0 °C	90.4 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
	0.500 J/cm ²	2.38 ft-lb/in ²	

Charpy Impact, Notched Mechanical Properties	Metric @ Temperature -30.0 °C	English @ Temperature -22.0 °F	ISO 179/1eA Comments
	0.900 J/cm²	4.28 ft-lb/in²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	50.0 - 80.0 µm/m-°C @Temperature 23.0 - 80.0 °C	27.8 - 44.4 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	50.0 - 70.0 µm/m-°C @Temperature 23.0 - 80.0 °C	27.8 - 38.9 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-1/-2
Thermal Conductivity	0.310 W/m-K	2.15 BTU-in/hr-ft²-°F	DIN 52612-1
Melting Point	220 °C	428 °F	ISO 11357-1/-3
Maximum Service Temperature, Air	100 °C	212 °F	for 50% loss of tensile strength after 20000hr
	180 °C	356 °F	
Deflection Temperature at 0.46 MPa (66 psi)	195 °C	383 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	70.0 °C	158 °F	ISO 75-1/-2
Decomposition Temperature	>= 300 °C	>= 572 °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	3.5 @Frequency 1.00e+6 Hz	3.5 @Frequency 1.00e+6 Hz	IEC 60250
Dissipation Factor	0.020 @Frequency 1.00e+6 Hz	0.020 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	450 V	450 V	Test Solution A; IEC 60112

Processing Properties	Metric	English	Comments
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Processing Temperature Processing Properties	80.0 °C Metric	176 °F English	Hepper Throat Comments
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
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
Color	BK 23213	
Commercial Status	Europe	
Ignition Temperature	>400°C	ASTM D1929
Peripheral screw speed	< 0.3 m/s	

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