

BASF Ultramid® B3K BK00464 PA6 (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Unreinforced

Material Notes:

Description: Easy flowing and stabilized injection-molding grade used for technical parts with wall thicknesses >2 mm, e.g. machinery components, fans and power tool housings. Information provided by BASF

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultramid-B3K-BK00464-PA6-Dry.php

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in ³	ISO 1183
Water Absorption	9.0 - 10 %	9.0 - 10 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	2.6 - 3.4 %	2.6 - 3.4 %	23°C; 50% RH; ISO 62
Viscosity Measurement	150	150	ISO 307
Linear Mold Shrinkage	0.0065 cm/cm	0.0065 in/in	restricted
Melt Flow	180.8 g/10 min @Load 5.00 kg, Temperature 275 °C	180.8 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	85.0 MPa	12300 psi	50 mm/min; ISO 527-1/-2
Elongation at Yield	4.5 %	4.5 %	50 mm/min; ISO 527-1/-2
Modulus of Elasticity	3.00 GPa	435 ksi	ISO 527-1/-2
Flexural Modulus	2.80 GPa	406 ksi	ISO 178
Izod Impact, Notched (ISO)	5.00 kJ/m ² @Temperature -30.0 °C	2.38 ft-lb/in ² @Temperature -22.0 °F	ISO 180/A
	5.50 kJ/m ² @Temperature 23.0 °C	2.62 ft-lb/in ² @Temperature 73.4 °F	ISO 180/A
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
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.400 J/cm ²	1.90 ft-lb/in ²	ISO 179/1eA

Mechanical Properties	@Temperature -30.0 °C Metric	@Temperature -22.0 °F English	Comments
	0.550 J/cm ²	2.62 ft-lb/in ²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 - 100 µm/m-°C	38.9 - 55.6 µin/in-°F	DIN 11359-1/-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
Specific Heat Capacity	1.70 J/g-°C	0.406 BTU/lb-°F	
Thermal Conductivity	0.330 W/m-K	2.29 BTU-in/hr-ft ² -°F	DIN 52612
Melting Point	220 °C	428 °F	DIN 53765
Maximum Service Temperature, Air	100 °C	212 °F	for 50% loss of tensile strength after 20000hr
	112 °C	234 °F	for 50% loss of tensile strength after 5000hr
	180 °C	356 °F	
Deflection Temperature at 0.46 MPa (66 psi)	180 °C	356 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	65.0 °C	149 °F	ISO 75-1/-2
Flammability, UL94	HB	HB	
	@Thickness 1.60 mm	@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	3.5	IEC 60250
	@Frequency 1.00 Hz	@Frequency 1.00 Hz	
Dissipation Factor	0.032	0.032	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	600 V	600 V	Test solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	250 - 270 °C	482 - 518 °F	Injection-molding/Extrusion
Mold Temperature	40.0 - 80.0 °C	104 - 176 °F	Injection-molding

Descriptive Properties	Value	Comments
Commercial Status	Europe	

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