

BASF Ultramid® KR 4357 G6 30% Glass Filled PA6/6T (Dry)

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

Material Notes:

Description: 30% glass-fiber reinforced, impact-modified product for injection-molding; high toughness, strength and stiffness, low water absorption, high melting point (295°C [563°F]). The mechanical properties remain constant after moisture absorption up to a temperature of 60°C [140°F], for instance, for automotive plug-in connectors. Information provided by BASF

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultramid-KR-4357-G6-30-Glass-Filled-PA66T-Dry.php

Physical Properties	Metric	English	Comments
Density	1.37 g/cc	0.0495 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	>= 0.80 %	>= 0.80 %	50% RH; ISO 62
	>= 4.5 %	>= 4.5 %	Saturation; ISO 62

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	165 MPa	23900 psi	ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	249 MPa	36100 psi	ISO 527
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Elongation at Break	3.5 %	3.5 %	ISO 527
Modulus of Elasticity	9.30 GPa	1350 ksi	ISO 527-1/-2
Izod Impact, Notched (ISO)	23.0 kJ/m ²	10.9 ft-lb/in ²	ISO 180/A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	9.00 J/cm ²	42.8 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	9.50 J/cm ²	45.2 ft-lb/in ²	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.00 J/cm ²	4.76 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.90 J/cm ²	9.04 ft-lb/in ²	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
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Thermal Properties	Metric $m/m-^{\circ}C$	English $in-in-^{\circ}F$	Comments
CTE, linear, Parallel to Flow	@Temperature 23.0 - 80.0 $^{\circ}C$	@Temperature 73.4 - 176 $^{\circ}F$	DIN 11359-1/-2
CTE, linear, Transverse to Flow	55.0 $\mu m/m-^{\circ}C$ @Temperature 23.0 - 80.0 $^{\circ}C$	30.6 $\mu in/in-^{\circ}F$ @Temperature 73.4 - 176 $^{\circ}F$	DIN 11359-1/-2
Specific Heat Capacity	1.40 J/g- $^{\circ}C$	0.335 BTU/lb- $^{\circ}F$	
Melting Point	295 $^{\circ}C$	563 $^{\circ}F$	DIN 53765
Deflection Temperature at 1.8 MPa (264 psi)	270 $^{\circ}C$	518 $^{\circ}F$	ISO 75-1/-2
Decomposition Temperature	≥ 350 $^{\circ}C$	≥ 662 $^{\circ}F$	
UL RTI, Electrical	140 $^{\circ}C$ @Thickness 1.50 mm	284 $^{\circ}F$ @Thickness 0.0591 in	746B
UL RTI, Mechanical with Impact	110 $^{\circ}C$ @Thickness 1.50 mm	230 $^{\circ}F$ @Thickness 0.0591 in	746B
UL RTI, Mechanical without Impact	140 $^{\circ}C$ @Thickness 1.50 mm	284 $^{\circ}F$ @Thickness 0.0591 in	746B
Flammability, UL94	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00e+13$ ohm-cm	$\geq 1.00e+13$ ohm-cm	IEC 60093
Dielectric Constant	4.3 @Frequency 1.00 Hz	4.3 @Frequency 1.00 Hz	IEC 60250
Dissipation Factor	0.030 @Frequency 1.00e+6 Hz	0.030 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	IEC 60112

Processing Properties	Metric	English	Comments
Processing Temperature	80.0 $^{\circ}C$	176 $^{\circ}F$	Hopper Throat
Zone 1	300 $^{\circ}C$	572 $^{\circ}F$	Feed Zone
Zone 2	310 $^{\circ}C$	590 $^{\circ}F$	Compression

Zone 3 Processing Properties	320 °C Metric	608 °F English	Metering-zone Comments
Zone 4	320 °C	608 °F	Nozzle

Descriptive Properties	Value	Comments
Color	BK 00564	
Commercial Status	North America	
Peripheral screw speed	<0.3 m/s	

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