

## BASF Ultramid® KR 4355 G7 BK 00564 35% Glass Filled PA6/6T (Dry)

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

### Material Notes:

Description: 35% glass-fiber reinforced 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 valve housings. Information provided by BASF

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Ultramid-KR-4355-G7-BK-00564-35-Glass-Filled-PA66T-Dry.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-KR-4355-G7-BK-00564-35-Glass-Filled-PA66T-Dry.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.500 - 0.800 g/cc	0.0181 - 0.0289 lb/in <sup>3</sup>	
Density	1.43 g/cc	0.0517 lb/in <sup>3</sup>	ISO 1183
Water Absorption	4.3 - 5.3 %	4.3 - 5.3 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	0.80 - 1.2 %	0.80 - 1.2 %	23°C; 50% RH; ISO 62
Viscosity Measurement	130	130	ISO 307
Linear Mold Shrinkage	0.0035 cm/cm	0.0035 in/in	restricted
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	ISO 2577
	0.0033 cm/cm	0.0033 in/in	TM=320°C, TW=100°C
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	210 MPa	30500 psi	50 mm/min; ISO 527-1/-2
Elongation at Yield	3.0 %	3.0 %	50 mm/min; ISO 527-1/-2
Modulus of Elasticity	12.0 GPa	1740 ksi	ISO 527-1/-2
Charpy Impact Unnotched	10.0 J/cm <sup>2</sup>	47.6 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.70 J/cm <sup>2</sup>	8.09 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	50.0 - 60.0 µm/m-°C	27.8 - 33.3 µin/in-°F	DIN 11359-1/-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	

Thermal Properties	Metric 10.0 µm/m-°C	English 5.0 µin/in-°F	Comments
CTE, linear, Transverse to Flow	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	DIN 11359-1/-2
Thermal Conductivity	0.280 W/m-K	1.94 BTU-in/hr-ft <sup>2</sup> -°F	DIN 52612
Melting Point	295 °C	563 °F	DIN 53765
Maximum Service Temperature, Air	135 °C	275 °F	for 50% loss of tensile strength after 20000hr
	160 °C	320 °F	for 50% loss of tensile strength after 5000hr
	270 °C	518 °F	
Deflection Temperature at 1.8 MPa (264 psi)	270 °C	518 °F	ISO 75-1/-2
Decomposition Temperature	>= 350 °C	>= 662 °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	4.2 @Frequency 1.00 Hz	4.2 @Frequency 1.00 Hz	IEC 60250
Dissipation Factor	0.020 @Frequency 1.00e+6 Hz	0.020 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Test solution A; IEC 60112

Processing Properties	Metric	English	Comments
Processing Temperature	80.0 °C	176 °F	Hopper Throat
Zone 1	300 °C	572 °F	Feed Zone
Zone 2	310 °C	590 °F	Compression
Zone 3	320 °C	608 °F	Metering-zone
Zone 4	320 °C	608 °F	Nozzle
Melt Temperature	310 - 330 °C	590 - 626 °F	Injection-molding/Extrusion
	320 °C	608 °F	Optimal

Processing Properties	Metric 20 °C	English 48 °F	Comments <b>olding</b>
	100 °C	212 °F	Optimal
Drying Temperature	110 °C	230 °F	
Dry Time	8 hour	8 hour	
Moisture Content	<= 0.030 %	<= 0.030 %	Optimal
	<= 0.15 %	<= 0.15 %	

Descriptive Properties	Value	Comments
Color	BK 00564	
Commercial Status	Europe	
Ignition Temperature	>470°C	ASTM D1929
Peripheral screw speed	<0.3 m/s	

## Contact Songhan Plastic Technology Co.,Ltd.

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