

## BASF Ultramid® KR 4355 G5 25% Glass Filled PA6/6T (Conditioned)

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

### Material Notes:

Description: 25% 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 brush collars (electric motors). Information provided by BASF

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Ultramid-KR-4355-G5-25-Glass-Filled-PA66T-Conditioned.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-KR-4355-G5-25-Glass-Filled-PA66T-Conditioned.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.500 - 0.800 g/cc	0.0181 - 0.0289 lb/in <sup>3</sup>	
Density	1.35 g/cc	0.0488 lb/in <sup>3</sup>	ISO 1183
Water Absorption	5.0 - 6.0 %	5.0 - 6.0 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	>= 1.3 %	>= 1.3 %	50% RH; ISO 62
	1.1 - 1.5 %	1.1 - 1.5 %	23°C; 50% RH; ISO 62
	>= 5.5 %	>= 5.5 %	Saturation; ISO 62
Viscosity Measurement	130	130	ISO 307
Linear Mold Shrinkage	0.0039 cm/cm	0.0039 in/in	restricted
Linear Mold Shrinkage, Flow	0.0045 cm/cm	0.0045 in/in	ISO 2577
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	170 MPa	24700 psi	50 mm/min; ISO 527-1/-2
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	203 MPa	29400 psi	ISO 527
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Elongation at Yield	3.0 %	3.0 %	ISO 527
Modulus of Elasticity	9.00 GPa	1310 ksi	ISO 527
Tensile Creep Modulus, 1000 hours	6500 MPa	943000 psi	ISO 899-1
	@Strain <=0.500 %	@Strain <=0.500 %	

Thermal Properties	Metric	English	Comments
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Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.250 W/m-K	1.74 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	
Decomposition Temperature	>= 350 °C	>= 662 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	IEC 60093
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093
Dielectric Constant	4.5 @Frequency 1.00 Hz	4.5 @Frequency 1.00 Hz	IEC 60250
Dielectric Strength	31.0 kV/mm	787 kV/in	IEC 60243-1
Dissipation Factor	0.040 @Frequency 1.00e+6 Hz	0.040 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Test solution A; IEC 60112

Processing Properties	Metric	English	Comments
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
Mold Temperature	80.0 - 120 °C	176 - 248 °F	Injection-molding
	100 °C	212 °F	Optimal
Drying Temperature	110 °C	230 °F	
Dry Time			

Processing Properties	8 hour Metric	8 hour English	Comments
Moisture Content	<= 0.030 %	<= 0.030 %	Optimal
	<= 0.15 %	<= 0.15 %	

Descriptive Properties	Value	Comments
Commercial Status	Europe and North America	
Ignition Temperature	>470°C	ASTM D1929

## Contact Songhan Plastic Technology Co.,Ltd.

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