

BASF Ultramid® 8231G HS BK-102 14% Glass Filled PA6 (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 10% Glass Fiber Filled

Material Notes:

Ultramid 8231G HS BK-102 is a black pigmented heat stabilized, 14% glass fiber reinforced PA6 injection molding compound. The glass fiber reinforcement enhances performance such as strength, stiffness and heat deflection temperature. The heat stabilizer system extends the properties at elevated temperatures. It also has excellent chemical resistance to greases, oils and hydrocarbons.

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultramid-8231G-HS-BK-102-14-Glass-Filled-PA6-Dry.php

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 lb/in ³	ISO 1183
Water Absorption	1.4 %	1.4 %	24 hour; ISO Test
	8.1 %	8.1 %	ISO 62
Moisture Absorption at Equilibrium	2.3 %	2.3 %	23°C/50% R.H.; ISO 62
Relative Viscosity	2.6 cP	2.6 cP	ISO Test; 96 % SAV
Viscosity Measurement	50	50	Formic Acid
Linear Mold Shrinkage	0.0050 cm/cm	0.0050 in/in	ASTM Data; MD

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	121	121	ASTM Test
Tensile Strength at Break	130 MPa	18900 psi	0.2 in/min; ASTM Test
	50.0 MPa	7250 psi	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	50.0 MPa	7250 psi	ISO Data
	@Temperature 120 °C	@Temperature 248 °F	
	60.0 MPa	8700 psi	ISO Data
	@Temperature 80.0 °C	@Temperature 176 °F	
	60.0 MPa	8700 psi	ASTM Test
	@Temperature 80.0 °C	@Temperature 176 °F	
	150 MPa	21800 psi	ASTM Test
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	150 MPa	21800 psi	

Mechanical Properties	Metric @ Temperature -40.0 °C	English @ Temperature -40.0 °F	ISO Data Comments
Tensile Strength, Ultimate	130 MPa	18900 psi	5mm/min; ISO 527
Elongation at Break	3.0 %	3.0 %	5mm/min; ISO 527
	3.0 %	3.0 %	0.2 in/min; ASTM Test
	3.0 % @Temperature -40.0 °C	3.0 % @Temperature -40.0 °F	ASTM Test
	3.0 % @Temperature -40.0 °C	3.0 % @Temperature -40.0 °F	ISO Data
	10 % @Temperature 120 °C	10 % @Temperature 248 °F	ISO Data
	10 % @Temperature 120 °C	10 % @Temperature 248 °F	ASTM Test
	14 % @Temperature 80.0 °C	14 % @Temperature 176 °F	ASTM Test
	14 % @Temperature 80.0 °C	14 % @Temperature 176 °F	ISO Data
Tensile Modulus	6.13 GPa	889 ksi	1mm/min; ISO 527
	2.02 GPa @Temperature 120 °C	293 ksi @Temperature 248 °F	ISO Data
	2.45 GPa @Temperature 80.0 °C	355 ksi @Temperature 176 °F	ISO Data
	6.88 GPa @Temperature -40.0 °C	998 ksi @Temperature -40.0 °F	ISO Data
Flexural Strength	160 MPa	23200 psi	ISO Data
Flexural Modulus	4.77 GPa	692 ksi	ISO Data
	5.20 GPa	754 ksi	ASTM Test
Izod Impact, Notched	0.450 J/cm @Thickness 3.17 mm	0.843 ft-lb/in @Thickness 0.125 in	ASTM Test
Charpy Impact Unnotched	3.10 J/cm ²	14.8 ft-lb/in ²	ISO 179
Charpy Impact, Notched	0.400 J/cm ²	1.90 ft-lb/in ²	ISO 179

Mechanical Properties	Metric	English	Comments
Thermal Properties	Metric	English	Comments
CTE, linear	50.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	27.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM Test
	@Temperature -30.0 - 30.0 $^{\circ}\text{C}$	@Temperature -22.0 - 86.0 $^{\circ}\text{F}$	
Melting Point	220 $^{\circ}\text{C}$	428 $^{\circ}\text{F}$	10 K/min
	220 $^{\circ}\text{C}$	428 $^{\circ}\text{F}$	ASTM Test
Deflection Temperature at 0.46 MPa (66 psi)	210 $^{\circ}\text{C}$	410 $^{\circ}\text{F}$	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	196 $^{\circ}\text{C}$	385 $^{\circ}\text{F}$	ISO 75
	201 $^{\circ}\text{C}$	394 $^{\circ}\text{F}$	ASTM Test
Flammability, UL94	HB	HB	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	HB	HB	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Processing Properties	Metric	English	Comments
Melt Temperature	275 $^{\circ}\text{C}$	527 $^{\circ}\text{F}$	Injection molding
Mold Temperature	95.0 $^{\circ}\text{C}$	203 $^{\circ}\text{F}$	Injection molding

Descriptive Properties	Value	Comments
Color	BK-102	
Commercial Status	Active America	
Form	Pellets	
Impact Modified	No	
Primary Processing Technique	Injection Molding	
Processing	Injection Molding	
Special characteristic	Heat stabilized or stable to heat	
UL.UL-C	Yes	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China