Ultramid® 8231G HS BK-106

Polyamide 6

BASF Corporation

Message:

Ultramid 8231G HS BK-106 is a black pigmented heat stabilized, 15% 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.
Applications
Ultramid 8231G HS BK-106 is ideally suited for more demanding performance applications such as washers, gears, engine and motor parts, chutes, and higher temperature environments.

General Information			
UL YellowCard	E36632-231123		
Filler / Reinforcement	Glass Fiber,15% Filler by Weight		
Additive	Heat Stabilizer		
Features	Good Chemical Resistance Good Stiffness Grease Resistant Heat Stabilized High Strength Hydrocarbon Resistant Oil Resistant		
Uses	Automotive Applications Gears Washer		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS Compliant		
Appearance	Black		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.23	g/cm³	ASTM D792, ISO 1183
Molding Shrinkage - Flow (3.18 mm)	0.50	%	
Water Absorption			
24 hr	1.4	%	ASTM D570
23°C, 24 hr	1.4	%	ISO 62
Saturation	8.1	%	ASTM D570
Saturation, 23°C	8.1	%	ISO 62
Equilibrium, 50% RH	2.3	%	ASTM D570
Equilibrium, 23°C, 50% RH	2.3	%	ISO 62

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	121		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	5800	MPa	ISO 527-2
Tensile Strength (Break, 23°C)	118	MPa	ASTM D638, ISO 527-2
Tensile Elongation (Break, 23°C)	2.9	%	ASTM D638, ISO 527-2
Flexural Modulus			
23°C	4940	MPa	ASTM D790
23°C	5300	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	4.0	kJ/m^2	ISO 179
Notched Izod Impact			
23°C	43	J/m	ASTM D256
23°C	3.8	kJ/m^2	ISO 180
Drop Impact Resistance (23°C)	2.71	J	Internal Method
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	198	°C	ISO 75-2/A
Peak Melting Temperature	220	°C	ASTM D3418, ISO 3146
CLTE - Flow	5.0E-5	cm/cm/°C	ASTM E831
Injection	**Nominal Value**	**Unit**	
Drying Temperature	80.0	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.15	%	
Processing (Melt) Temp	250 to 290	°C	
Mold Temperature	80.0 to 95.0	°C	
Injection Pressure	3.50 to 12.5	MPa	
Injection Rate	Fast		

Recommended distributors for this material

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