Ultramid® 8267G HS BK-106A

Polyamide 6

BASF Corporation

Product Description
Ultramid 8267G HS BK-106A is a heat stabilized, weather resistant, 40% mineral and glass fiber reinforced PA6 injection molding compound with improved UV resistance and sink mark resistance. The combination of mineral and glass fibers result in a high performance, low warp and cost effective engineering thermoplastic. It exhibits high strength, good UV resistance, rigidity and good heat distortion temperatures. It has a relatively high resistance to creep under load. The heat stabilizer system extends its retention of properties at elevated temperatures. It has good chemical resistance to greases, oils and hydrocarbons.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber Reinforcement, 15% Filler by Weight	• Mineral Filler, 25% Filler by Weight	
Additive	• Heat Stabilizer		
Features	• Good Abrasion Resistance • Good Chemical Resistance • Good Creep Resistance • Good Dimensional Stability • Good Flow • Good Processability	• Good Stiffness • Good Surface Finish • Good Thermal Aging Resistance • Good UV Resistance • Heat Stabilized • High Strength	• Low Viscosity • Low Warpage • Semi Crystalline • Warp Resistant
Uses	• Automotive Applications • Handles	• Outdoor Applications • Wheels	
Agency Ratings	• ULC Unspecified Rating		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.48	g/cm³	ASTM D792
--	1480	kg/m³	ISO 1183 [2]
Molding Shrinkage - Flow (3.18 mm)	0.40	%	ASTM D955
Water Absorption			
24 hr	0.90	%	ASTM D570
24 hr, 23°C	0.90	%	ISO 62
Saturation	5.7	%	ASTM D570 ISO 62 [2]
Equilibrium, 50% RH	1.6	%	ASTM D570
Equilibrium	1.6	%	ISO 62 [2]

Mechanical	Nominal Value	Unit	Test Method
Tensile modulus	8400	MPa	ISO 527-2 [2]
Tensile Strength			
Break, 23°C	120	MPa	ASTM D638
Break	118	MPa	ISO 527-2 [2]
Tensile Elongation			
Break, 23°C	2.0	%	ASTM D638
Break	2.0	%	ISO 527-2 [2]
Flexural Modulus			
23°C	7160	MPa	ASTM D790
23°C	7300	MPa	ISO 178
Flexural Strength			
23°C	190	MPa	ASTM D790
23°C	170	MPa	ISO 178

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Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength			ISO 179/1eA [2]
-30°C	5.00	kJ/m²	
23°C	5.50	kJ/m²	
Charpy Unnotched Impact Strength (23°C)	44	kJ/m²	ISO 179
Notched Izod Impact (23°C)	55.0	J/m	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	121		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ISO 75-2 [2]
0.45 MPa	215	°C	
1.8 MPa	200	°C	
Melting Temperature	220	°C	ASTM D3418 ISO 3146
CLTE - Flow	0.000031	cm/cm/°C	ASTM E831
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating - UL (1.50 mm)	HB		UL 94
UL 746	**Nominal Value**	**Unit**	**Test Method**
RTI Str (1.50 mm)	105	°C	UL 746
RTI Imp (1.50 mm)	105	°C	UL 746
RTI Elec (1.50 mm)	105	°C	UL 746

Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Processing (Melt) Temp	270 to 295	°C
Mold Temperature	80.0 to 95.0	°C
Injection Pressure	3.50 to 12.5	MPa
Injection Rate	Fast	

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.