Ultramid® 8233G HS BK-106 (Cond)

Polyamide 6

BASF Corporation

Product Description
Ultramid 8233G HS BK-106 is a heat stabilized, weather resistant, 33% glass fiber reinforced PA6 injection molding compound offering excellent strength, stiffness, high temperature performance and dimensional stability. This balance of engineering properties in combination with excellent processability make it ideal in applications replacing metal, resulting in an overall cost and weight savings.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber Reinforcement, 33% 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 Thermal Stability • Good UV Resistance • Heat Stabilized	• High Rigidity • High Strength • Low Viscosity • Semi Crystalline
Uses	• Automotive Applications • Automotive Exterior Parts	• Connectors • Gears	• Outdoor Applications
Agency Ratings	• ULC Unspecified Rating		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-40°C	11500	MPa	ISO 527-2
80°C	4600	MPa	ISO 527-2
121°C	4200	MPa	ISO 527-2
--	7700	MPa	ISO 527-2 [2]
Tensile Stress			
Break, -40°C	215	MPa	ISO 527-2
Break, 80°C	70.0	MPa	ISO 527-2
Break, 121°C	60.0	MPa	ISO 527-2
Break	100	MPa	ISO 527-2 [2]
Tensile Strain (Break)	6.0	%	ISO 527-2 [2]

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.

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Product Description
Ultramid 8233G HS is a heat stabilized, 33% glass fiber reinforced PA6 injection molding compound offering excellent strength, stiffness, high temperature performance and dimensional stability. It is also available in non-heat stabilized (Ultramid 8233G) and/or pigmented versions.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber Reinforcement, 33% 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 Thermal Stability	• Heat Stabilized • High Rigidity • High Strength • Low Viscosity • Semi Crystalline
Uses	• Automotive Applications • Automotive Exterior Parts • Automotive Under the Hood	• Connectors • Gears • Lawn and Garden Equipment	• Metal Replacement • Power/Other Tools
Agency Ratings	• ASTM D 4066	• NSF 14	• ULC Unspecified Rating
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• White
Forms	• Pellets		
Processing Method	• Injection Molding		
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)	• Secant Modulus vs. Strain (ISO 11403-1)	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-40°C	11600	MPa	ISO 527-2
80°C	4300	MPa	ISO 527-2
121°C	3400	MPa	ISO 527-2
--	5840	MPa	ISO 527-2 [2]
Tensile Strength			
Break, -40°C	255	MPa	ASTM D638 ISO 527-2
Break, 23°C	125	MPa	ASTM D638
Break, 80°C	80.0	MPa	ASTM D638 ISO 527-2
Break, 121°C	60.0	MPa	ASTM D638 ISO 527-2
Break	125	MPa	ISO 527-2 [2]
Tensile Elongation			
Break, -40°C	3.5	%	ASTM D638
Break, 23°C	6.0	%	ASTM D638
Break, 80°C	6.0	%	ASTM D638
Break, 121°C	6.0	%	ASTM D638
Break	6.0	%	ISO 527-2 [2]
Flexural Modulus			
-40°C	10200	MPa	ASTM D790
23°C	5130	MPa	ASTM D790
23°C	5200	MPa	ISO 178
Flexural Strength			
-40°C	361	MPa	ASTM D790
23°C	179	MPa	ASTM D790
23°C	130	MPa	ISO 178

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Wednesday, December 16, 2009

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Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C	107	J/m	
23°C	235	J/m	
Drop Impact Resistance (23°C)	7	J	Internal Method

Notes

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