



Ultramid® 8232G HS FR BK102

BASF Corporation - Polyamide 6

Monday, November 4, 2019

General Information

Product Description

Ultramid 8232G HS FR BK102 is a 25% glass fiber reinforced, heat stabilized, flame retardant pigmented black PA6 injection molding compound exhibiting excellent melt stability characteristics. It combines flame retardant ability with an excellent balance of high strength, stiffness and heat distortion temperature.

Applications

Ultramid 8232G HS FR BK102 is generally recommended for applications such as connectors, terminal blocks, switches and receptacles, coil bobbins, and appliance housings.

General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Flame Retardant • Heat Stabilized	• High Melt Stability • High Stiffness	• High Strength
Uses	• Appliance Components • Bobbins	• Connectors • Housings	• Switches
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.67		ASTM D792
Density	1.67	g/cm ³	ISO 1183
Molding Shrinkage - Flow (0.125 in)	3.0E-3	in/in	
Water Absorption (Saturation)	4.0	%	ASTM D570
Water Absorption (Saturation, 73°F)	4.0	%	ISO 62
Water Absorption (Equilibrium, 50% RH)	1.1	%	ASTM D570
Water Absorption (Equilibrium, 73°F, 50% RH)	1.1	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	1.60E+6	psi	ISO 527-2
Tensile Strength (Break, 73°F)	21800	psi	ASTM D638
Tensile Stress (Break, 73°F)	21800	psi	ISO 527-2
Tensile Elongation (Break, 73°F)	1.9	%	ASTM D638
Tensile Strain (Break, 73°F)	1.9	%	ISO 527-2
Flexural Modulus (73°F)	1.51E+6	psi	ASTM D790
Flexural Modulus (73°F)	1.51E+6	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	3.8	ft-lb/in ²	
73°F	4.5	ft-lb/in ²	

Ultramid® 8232G HS FR BK102

BASF Corporation - Polyamide 6

Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (73°F)	24	ft-lb/in ²	ISO 179
Notched Izod Impact (73°F)	1.4	ft-lb/in	ASTM D256
Notched Izod Impact Strength (73°F)	4.7	ft-lb/in ²	ISO 180
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	121		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	401	°F	ASTM D648
Heat Deflection Temperature (264 psi, Unannealed)	383	°F	ISO 75-2/A
Peak Melting Temperature	428	°F	ASTM D3418
Melting Temperature (DSC)	428	°F	ISO 3146
RTI Elec			UL 746
0.030 in	266	°F	
0.06 in	266	°F	
0.10 in	266	°F	
0.12 in	266	°F	
RTI Imp			UL 746
0.030 in	221	°F	
0.06 in	239	°F	
0.10 in	239	°F	
0.12 in	239	°F	
RTI Str			UL 746
0.030 in	221	°F	
0.06 in	239	°F	
0.10 in	239	°F	
0.12 in	248	°F	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.030 in		V-0	
0.06 in		V-0	
0.10 in	•	V-0	
	•	5VA	
0.12 in	•	V-0	
	•	5VA	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.15	%
Processing (Melt) Temp	482 to 554	°F
Mold Temperature	176 to 203	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

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