

Ultramid® 8235G HS BK-102

Polyamide 6

BASF Corporation

Message:

Ultramid 8235G HS BK-102 is a heat stabilized, pigmented black, 50% glass fiber reinforced PA6 injection molding compound offering excellent level of strength, stiffness, high temperature performance and dimensional stability. Its resistance to creep under load is excellent. It is available in natural, black, weather resistance and pigmented versions.

Applications

Ultramid 8235G HS BK-102 is generally recommended for applications such as power tool housings, cattle ear taggers, luggage frames, fans and pressure regulator housings.

General Information				
UL YellowCard		E36632-231133		
Filler / Reinforcement		Glass Fiber,50% Filler by Weight		
Additive		Heat Stabilizer		
Features		Good Creep Resistance		
		Good Dimensional Stability		
		Heat Stabilized		
		High Heat Resistance		
		High Stiffness		
		High Strength		
Uses		Housings		
		Luggage		
		Molded Ear Tags		
		Power/Other Tools		
Agency Ratings		EC 1907/2006 (REACH)		
RoHS Compliance		RoHS Compliant		
Appearance		Black		
		Colors Available		
		Natural Color		
Forms		Pellets		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.56	--	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage - Flow (3.18 mm)	0.20	--	%	
Water Absorption				
Saturation	4.8	--	%	ASTM D570
Saturation, 23°C	4.8	--	%	ISO 62

Equilibrium, 50% RH	1.4	--	%	ASTM D570
Equilibrium, 23°C, 50% RH	1.4	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	15800	8910	MPa	ISO 527-2
Tensile Strength (Break, 23°C)	210	145	MPa	ASTM D638, ISO 527-2
Tensile Elongation (Break, 23°C)	2.0	6.0	%	ASTM D638, ISO 527-2
Flexural Modulus				
23°C	14700	--	MPa	ASTM D790
23°C	13200	--	MPa	ISO 178
Flexural Stress (23°C)	300	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	15	--	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	70	--	kJ/m ²	ISO 179
Notched Izod Impact				
23°C	140	--	J/m	ASTM D256
-40°C	12	--	kJ/m ²	ISO 180
23°C	15	--	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	220	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	210	--	°C	ISO 75-2/A
Peak Melting Temperature	220	--	°C	ASTM D3418, ISO 3146
RTI Elec				UL 746
0.750 mm	65.0	--	°C	
1.70 mm	130	--	°C	
3.00 mm	130	--	°C	
RTI Imp				UL 746
0.750 mm	65.0	--	°C	
1.70 mm	105	--	°C	
3.00 mm	105	--	°C	
RTI Str				UL 746
0.750 mm	65.0	--	°C	
1.70 mm	130	--	°C	
3.00 mm	130	--	°C	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity				
1.50 mm	> 1.0E+13	--	ohms · cm	ASTM D257
--	> 1.0E+13	--	ohms · cm	IEC 60093

Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.750 mm	HB	--		
1.70 mm	HB	--		
3.00 mm	HB	--		
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	2.0 to 4.0		hr	
Suggested Max Moisture	0.060		%	
Processing (Melt) Temp	280 to 305		°C	
Mold Temperature	80.0 to 95.0		°C	
Injection Pressure	3.50 to 12.5		MPa	
Injection Rate	Fast			

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