

Ultramid® 8234G HS

Polyamide 6

BASF Corporation

Message:

Ultramid 8234G HS is a heat stabilized, 44% glass fiber reinforced PA6 injection molding compound offering the highest level of strength, stiffness, high temperature performance and dimensional stability. It is available in natural and black versions. Pigmented and weatherable versions may be offered on a case by case basis.

Applications

Ultramid 8234G HS is generally recommended for applications such as power tool housings, cattle ear taggers, luggage frames, fans and pressure regulator housings.

General Information				
UL YellowCard		E36632-231132		
Filler / Reinforcement		Glass Fiber,44% Filler by Weight		
Additive		Heat Stabilizer		
Features		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	1.49	--	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage - Flow (3.18 mm)	0.20	--	%	
Water Absorption				
24 hr	0.90	--	%	ASTM D570
23°C, 24 hr	0.90	--	%	ISO 62
Saturation	5.2	--	%	ASTM D570

Saturation, 23°C	5.2	--	%	ISO 62
Equilibrium, 50% RH	1.5	--	%	ASTM D570
Equilibrium, 23°C, 50% RH	1.5	--	%	ISO 62
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (R-Scale)	121	--		ASTM D785
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	13500	7490	MPa	ISO 527-2
Tensile Strength				
Break, 23°C	230	145	MPa	ASTM D638
Break, 23°C	215	145	MPa	ISO 527-2
Tensile Elongation				
Break, 23°C	2.0	6.0	%	ASTM D638
Break, 23°C	3.0	6.0	%	ISO 527-2
Flexural Modulus				
-40°C	12300	14700	MPa	ASTM D790
23°C	11700	6560	MPa	ASTM D790
65°C	7000	--	MPa	ASTM D790
121°C	4830	--	MPa	ASTM D790
23°C	11400	--	MPa	ISO 178
Flexural Strength				
-40°C	450	410	MPa	ASTM D790
23°C	352	212	MPa	ASTM D790
65°C	220	--	MPa	ASTM D790
90°C	160	--	MPa	ASTM D790
121°C	138	--	MPa	ASTM D790
23°C	325	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	21	--	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	90	--	kJ/m ²	ISO 179
Notched Izod Impact				
23°C	130	--	J/m	ASTM D256
-40°C	11	--	kJ/m ²	ISO 180
23°C	14	--	kJ/m ²	ISO 180
Drop Impact Resistance (23°C)	4.07	--	J	Internal Method
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	220	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	212	--	°C	ASTM D648

1.8 MPa, Unannealed	210	--	°C	ISO 75-2/A
Peak Melting Temperature	220	--	°C	ASTM D3418, ISO 3146
CLTE				
Flow	3.1E-5	--	cm/cm/°C	ASTM E831
Flow	3.2E-5	--	cm/cm/°C	
Transverse	7.9E-5	--	cm/cm/°C	
RTI Elec				UL 746
0.710 mm	130	--	°C	
1.50 mm	140	--	°C	
3.00 mm	140	--	°C	
RTI Imp				UL 746
0.710 mm	95.0	--	°C	
1.50 mm	105	--	°C	
3.00 mm	105	--	°C	
RTI Str				UL 746
0.710 mm	130	--	°C	
1.50 mm	140	--	°C	
3.00 mm	140	--	°C	
Flammability	Dry	Conditioned		Test Method
Flame Rating				UL 94
1.50 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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