

Ultramid® A3HG6 HR BK23591

Polyamide 66

BASF Corporation

Message:

Ultramid A3HG6 HR BK23591 is a 30% glass reinforced, pigmented black, injection molding PA66 grade. It offers good resistance to hydrolysis.

Applications

Typical applications include automotive radiator mounting frame.

General Information				
UL YellowCard		E41871-233735	E36632-102062539	
Filler / Reinforcement		Glass Fiber,30% Filler by Weight		
Features		Hydrolysis Resistant		
		Oil Resistant		
Uses		Automotive Applications		
		Automotive Under the Hood		
Agency Ratings		EC 1907/2006 (REACH)		
RoHS Compliance		RoHS Compliant		
Appearance		Black		
Forms		Pellets		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	25.0	--	cm³/10min	ISO 1133
Water Absorption				ISO 62
Saturation, 23°C	5.5	--	%	
Equilibrium, 23°C, 50% RH	1.7	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	225	175	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	10000	6800	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Break, -40°C	240	231	MPa	
Break, 23°C	190	120	MPa	
Tensile Strain (Break, 23°C)	3.2	5.4	%	ISO 527-2
Flexural Modulus (23°C)	8700	5800	MPa	ISO 178
Flexural Stress (23°C)	275	200	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method

Charpy Notched Impact Strength				ISO 179
-30°C	9.0	--	kJ/m ²	
23°C	11	16	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179
-30°C	65	--	kJ/m ²	
23°C	80	90	kJ/m ²	
Notched Izod Impact Strength				ISO 180
-30°C	9.0	--	kJ/m ²	
23°C	13	20	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	250	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	250	--	°C	ISO 75-2/A
Melting Temperature (DSC)	260	--	°C	ISO 3146
CLTE				
Flow	2.5E-5	--	cm/cm/°C	
Transverse	6.5E-5	--	cm/cm/°C	
RTI Elec (1.50 mm)	65.0	--	°C	UL 746
RTI Imp (1.50 mm)	65.0	--	°C	UL 746
RTI Str (1.50 mm)	65.0	--	°C	UL 746
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+13	1.0E+10	ohms · cm	IEC 60093
Dielectric Constant (1 MHz)	3.50	5.60		IEC 60250
Dissipation Factor (100 Hz)	0.14	0.23		IEC 60250
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.50 mm)	HB	--		UL 94
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	2.0 to 4.0		hr	
Suggested Max Moisture	0.15		%	
Processing (Melt) Temp	280 to 305		°C	
Mold Temperature	80.0 to 90.0		°C	
Injection Pressure	3.50 to 12.5		MPa	
Injection Rate	Fast			

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