

Vydyne® R530H BK0713

Polyamide 66

Ascend Performance Materials Operations LLC

Message:

R530H BK0713 is a black, 30% glass-fiber reinforced, PA66 that is heat stabilized. R530H BK0713 is bromine-free and is optimized for excellent laser welding and marking.

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight
Additive	heat stabilizer
	Lubricant
Features	Laser marking
	Laser welding
	Good corrosion resistance
	Good heat aging resistance
	Good wear resistance
	Good chemical resistance
	Fatigue resistance
	Gasoline resistance
	Thermal Stability
	Lubrication
	Bromine-free
Uses	Lighting Applications
	Electrical/Electronic Applications
	Electrical components
	Electrical housing
	Electrical appliances
	Industrial application
	Fasteners
	Switch
	Connector
	Application in Automobile Field
	spool
	Printed circuit board
Agency Ratings	ASTM D 4066 PA0121G30
	ASTM D 6779 PA0121G30

UL File Number		E70062		
Appearance		Black		
Forms		Particle		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Lateral flow: 23°C, 2.00mm	0.90	--	%	ISO 294-4
Traffic: 23°C, 2.00mm	0.40	--	%	ISO 294-4
Water Absorption				ISO 62
23°C, 24 hr	0.90	--	%	ISO 62
Balance, 50% RH	1.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	10000	7400	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	195	135	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.0	5.0	%	ISO 527-2
Flexural Modulus (23°C)	9600	6000	MPa	ISO 178
Flexural Stress (23°C)	270	190	MPa	ISO 178
Poisson's Ratio (23°C)	0.40	--		ISO 527
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-30°C	10	11	kJ/m ²	ISO 179
23°C	11	13	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength				ISO 179
-30°C	65	80	kJ/m ²	ISO 179
23°C	75	85	kJ/m ²	ISO 179
Notched Izod Impact				ISO 180
-30°C	10	11	kJ/m ²	ISO 180
23°C	12	13	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	260	--	°C	ISO 75-2/B
1.8 MPa, not annealed	250	--	°C	ISO 75-2/A
Melting Temperature	260	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C, 2.00mm	2.2E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C, 2.00mm	1.1E-4	--	cm/cm/°C	ISO 11359-2

RTI Elec				UL 746
0.75 mm	140	--	°C	UL 746
1.5 mm	140	--	°C	UL 746
3.0 mm	140	--	°C	UL 746
RTI Imp				UL 746
0.75 mm	120	--	°C	UL 746
1.5 mm	120	--	°C	UL 746
3.0 mm	120	--	°C	UL 746
RTI				UL 746
0.75 mm	125	--	°C	UL 746
1.5 mm	140	--	°C	UL 746
3.0 mm	140	--	°C	UL 746
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (3.00 mm)	1.0E+13	--	ohms·cm	IEC 60093
Dielectric Strength (1.00 mm)	20	--	kV/mm	IEC 60243
Arc Resistance (3.00 mm)	PLC 6	--		ASTM D495
Comparative Tracking Index (3.00 mm)	250 - 399	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.75 mm	PLC 0	--		UL 746
1.5 mm	PLC 0	--		UL 746
3.0 mm	PLC 0	--		UL 746
High Voltage Arc Tracking Rate (HVTR)				UL 746
PLC 1	--			UL 746
Hot-wire Ignition (HWI)				UL 746
0.75 mm	PLC 4	--		UL 746
1.5 mm	PLC 3	--		UL 746
3.0 mm	PLC 4	--		UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.75 mm	HB	--		UL 94
1.5 mm	HB	--		UL 94
3.0 mm	HB	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.75 mm	675	--	°C	IEC 60695-2-12
1.5 mm	675	--	°C	IEC 60695-2-12
3.0 mm	675	--	°C	IEC 60695-2-12
Glow Wire Ignition Temperature				IEC 60695-2-13
0.75 mm	700	--	°C	IEC 60695-2-13

1.5 mm	700	--	°C	IEC 60695-2-13
3.0 mm	700	--	°C	IEC 60695-2-13
Injection	Dry	Unit		
Drying Temperature	80		°C	
Drying Time	4.0		hr	
Suggested Max Regrind	25		%	
Rear Temperature	280 - 310		°C	
Middle Temperature	280 - 310		°C	
Front Temperature	280 - 310		°C	
Nozzle Temperature	280 - 310		°C	
Processing (Melt) Temp	285 - 305		°C	
Mold Temperature	65 - 95		°C	

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