

Vydyne® R530J BK0723

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Vydyne R530J BK0723 is a black, 30% glass filled, high flow, PA66 that contains an electrically neutral heat stabilizer. It is specifically designed for electrical applications requiring high dielectric strength, low conductivity, corrosion resistance, and laser markability.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Chemical Resistant • Corrosion Resistant • Good Colorability • Good Electrical Properties	• Good Mold Release • Heat Stabilized • Heat Stabilized - Organic • High Flow	• High Strength • Laser Markable
Agency Ratings	• ASTM D4066 PA012G30	• ASTM D6779 PA012G30	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• RENAULT UB18a	• RENAULT UB25a	• RENAULT UB29c
UL File Number	• E70062		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF30		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.3	--	%	
Flow : 73°F, 0.0787 in	0.50	--	%	
Water Absorption (24 hr, 73°F)	0.84	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.42E+6	1.00E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	25700	18400	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.6	4.0	%	ISO 527-2
Flexural Modulus (73°F)	1.28E+6	943000	psi	ISO 178
Flexural Stress (73°F)	36700	22500	psi	ISO 178
Poisson's Ratio (73°F)	0.38	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	4.0	3.7	ft·lb/in ²	
-22°F	3.9	3.7	ft·lb/in ²	
73°F	4.5	4.8	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	23	23	ft·lb/in ²	
-22°F	25	24	ft·lb/in ²	
73°F	26	35	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	3.7	3.8	ft·lb/in ²	



-22°F	3.7	3.8	ft·lb/in ²	
73°F	4.1	4.6	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	502	502	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	486	475	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.1E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	4.1E-5	--	in/in/°F	ISO 11359-2
RTI Elec				UL 746B
0.030 in	248	--	°F	
0.06 in	248	--	°F	
0.12 in	248	--	°F	
RTI Imp				UL 746B
0.030 in	185	--	°F	
0.06 in	185	--	°F	
0.12 in	221	--	°F	
RTI Str				UL 746B
0.030 in	239	--	°F	
0.06 in	248	--	°F	
0.12 in	248	--	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	990	740	V/mil	IEC 60243-1
Arc Resistance (0.118 in)	PLC 5	--		ASTM D495
High Amp Arc Ignition (HAI)				UL 746A
0.030 in	PLC 4	--		
0.06 in	PLC 4	--		
0.12 in	PLC 4	--		
High Voltage Arc Tracking Rate (HVTR) (0.118 in)	PLC 1	--		UL 746A
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.0787 in)	0.0	--	in/min	ISO 3795
Flame Rating				UL 94
0.030 in	HB	--		
0.06 in	HB	--		
0.12 in	HB	--		
Processing Information				
Injection			Dry Unit	
Drying Temperature			176 °F	
Drying Time			4.0 hr	
Rear Temperature			536 to 590 °F	
Middle Temperature			536 to 590 °F	
Front Temperature			536 to 590 °F	
Nozzle Temperature			536 to 590 °F	
Processing (Melt) Temp			545 to 581 °F	
Mold Temperature			149 to 203 °F	

