

Vydyne® R525J BK0722

 Ascend Performance Materials Operations LLC - *Polyamide 66*
General Information
Product Description

Vydyne R525J BK0722 is a black, 25% 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, 25% Filler by Weight
Additive	• Heat Stabilizer
Features	• Chemical Resistant • Good Mold Release • High Strength • Corrosion Resistant • Heat Stabilized • Laser Markable • Good Colorability • Heat Stabilized - Organic • Good Electrical Properties • High Flow
Agency Ratings	• ASTM D4066 PA012G25 • ASTM D6779 PA012G25
UL File Number	• E70062
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID	• PA66-GF25

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.32	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.90	--	%	
Flow : 73°F, 0.0787 in	0.40	--	%	
Water Absorption (24 hr, 73°F)	0.90	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.0	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.25E+6	798000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	23400	17000	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.4	7.0	%	ISO 527-2
Flexural Modulus (73°F)	1.12E+6	827000	psi	ISO 178
Flexural Stress (73°F)	36300	21800	psi	ISO 178
Poisson's Ratio (73°F)	0.40	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	4.8	4.8	ft·lb/in ²	
73°F	5.2	5.7	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	26	31	ft·lb/in ²	
73°F	31	32	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-22°F	4.3	4.8	ft·lb/in ²	
73°F	4.8	7.1	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	496	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	473	--	°F	ISO 75-2/A



Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.4E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	6.1E-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
Volume Resistivity (0.0394 in)	1.0E+13	--	ohms·cm	IEC 60093
Electric Strength (0.0394 in)	690	610	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 0	--		
0.06 in	PLC 0	--		
0.12 in	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR) (0.118 in)	PLC 1	--		UL 746A
Hot-wire Ignition (HWI)				UL 746A
0.016 in	PLC 4	--		
0.030 in	PLC 4	--		
0.06 in	PLC 4	--		
Flammability	Dry	Conditioned	Unit	Test Method
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	

