

**Vydyne® B 45 GF BK EST K1**

 Ascend Performance Materials Operations LLC - *Polyamide 6*
**General Information**
**Product Description**

Vydyne B 45 GF BK EST K1 is standard flow, heat stabilized, 45% glass-fiber reinforced PA6 resin. Available in black, this product is also lubricated for improved machine feed and flow.

**General**

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 45% Filler by Weight
Additive	• Heat Stabilizer • Lubricant
Features	• Chemical Resistant • Good Flow • Lubricated • Gasoline Resistant • Heat Stabilized • General Purpose • High Heat Resistance
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID	• PA6-GF45

**Properties <sup>1</sup>**

Physical	Dry	Conditioned	Unit	Test Method
Density	1.51	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.70	--	%	
Flow : 73°F, 0.0787 in	0.20	--	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	1.7	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	2.03E+6	1.45E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	30500	21000	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.6	5.8	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength (73°F)	8.1	11	ft·lb/in <sup>2</sup>	ISO 180/1A
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	428	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	419	--	°F	ISO 75-2/A
Melting Temperature	428	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (0.118 in)	450	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.06 in	HB	--		
0.12 in	HB	--		

**Processing Information**

Injection	Dry Unit
Drying Temperature	176 to 194 °F
Drying Time	> 3.0 hr
Rear Temperature	446 to 500 °F
Middle Temperature	446 to 500 °F
Front Temperature	446 to 500 °F
Nozzle Temperature	446 to 500 °F
Processing (Melt) Temp	446 to 500 °F
Mold Temperature	176 to 194 °F

