

**Vydyne® B 25 GF BK EST K1**

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

Vydyne B 25 GF BK EST K1 is standard flow, heat stabilized, 25% 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, 25% 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-GF25

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

<b>Physical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Density	1.32	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.80	--	%	
Flow : 73°F, 0.0787 in	0.50	--	%	
Water Absorption (24 hr, 73°F)	1.9	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.0	--	%	ISO 62
<b>Mechanical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus (73°F)	1.16E+6	740000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	23500	14200	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.3	8.1	%	ISO 527-2
Flexural Modulus (73°F)	1.13E+6	696000	psi	ISO 178
Flexural Stress (73°F)	31500	17000	psi	ISO 178
Poisson's Ratio (73°F)	0.34	--		ISO 527-2
<b>Impact</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	3.9	3.9	ft·lb/in <sup>2</sup>	
-22°F	4.8	7.1	ft·lb/in <sup>2</sup>	
73°F	5.2	8.6	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	29	29	ft·lb/in <sup>2</sup>	
-22°F	31	34	ft·lb/in <sup>2</sup>	
73°F	36	40	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength				ISO 180/1A
-40°F	3.6	3.8	ft·lb/in <sup>2</sup>	
-22°F	4.0	4.8	ft·lb/in <sup>2</sup>	
73°F	5.2	8.1	ft·lb/in <sup>2</sup>	
<b>Thermal</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (66 psi, Unannealed)	424	406	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	394	379	°F	ISO 75-2/A
Melting Temperature	428	--	°F	ISO 11357-3



CLTE - Flow (73 to 131°F, 0.0787 in)	1.3E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.0E-5	--	in/in/°F	ISO 11359-2
<b>Electrical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Electric Strength (0.0394 in)	690	610	V/mil	IEC 60243-1
Comparative Tracking Index (0.118 in)	450	--	V	IEC 60112
<b>Flammability</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating				UL 94
0.06 in	HB	--		
0.12 in	HB	--		

### Processing Information

<b>Injection</b>	<b>Dry Unit</b>
Drying Temperature	176 to 194 °F
Drying Time	> 3.0 hr
Rear Temperature	446 to 536 °F
Middle Temperature	446 to 536 °F
Front Temperature	446 to 536 °F
Nozzle Temperature	446 to 536 °F
Processing (Melt) Temp	446 to 536 °F
Mold Temperature	176 to 194 °F

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

