

**Vydyne® B 50 GF H BK0952**

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

Vydyne® B 50 GF H BK0952 is a laser markable, heat stabilized, 50% glass reinforced PA6. This product is also lubricated for improved machine feed and flow, suitable for injection molding applications.

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	• Mold Release
Features	• Heat Aging Resistant	• High Flow	• Lubricated
	• Heat Stabilized	• Laser Markable	
Automotive Specifications	• STELLANTIS MS-DB-41 CPN3504		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA6-GF50		

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

<b>Physical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Density	1.60	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.30	--	%	
Flow : 73°F, 0.0787 in	0.60	--	%	
Water Absorption (24 hr, 73°F)	1.2	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.5	--	%	ISO 62
<b>Mechanical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus (73°F)	2.65E+6	1.61E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	31800	21300	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.7	4.9	%	ISO 527-2
Flexural Modulus (73°F)	2.47E+6	1.44E+6	psi	ISO 178
Flexural Stress (73°F)	50200	29600	psi	ISO 178
<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	6.2	6.7	ft·lb/in <sup>2</sup>	
-22°F	7.1	7.1	ft·lb/in <sup>2</sup>	
73°F	7.1	11	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	46	42	ft·lb/in <sup>2</sup>	
-22°F	47	45	ft·lb/in <sup>2</sup>	
73°F	44	53	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength				ISO 180/1A
-40°F	6.7	7.6	ft·lb/in <sup>2</sup>	
-22°F	7.1	8.1	ft·lb/in <sup>2</sup>	
73°F	7.6	11	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)	428	423	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	414	401	°F	ISO 75-2/A
Melting Temperature	430	--	°F	ISO 11357-3



Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	650	--	V/mil	IEC 60243-1

### Processing Information

Injection	Dry Unit
Drying Temperature	176 °F
Drying Time	4.0 to 12 hr
Suggested Max Regrind	25 %
Rear Temperature	446 to 491 °F
Middle Temperature	455 to 500 °F
Front Temperature	464 to 500 °F
Nozzle Temperature	464 to 500 °F
Processing (Melt) Temp	464 to 500 °F
Mold Temperature	158 to 203 °F

### Notes

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

