

**Vydyne® AVS4BF1 BK0876**

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

Vydyne AVS4BF1 BK0876 is a 50% glass filled, heat stabilized PA66 based grade that provides a good balance of NVH damping and structural performance.

**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
Features	• Good Rigidity • Heat Stabilized • Good Tensile Strength • High Flow
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID	• PA66-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	1.0	--	%	
Flow : 73°F, 0.0787 in	0.60	--	%	
Water Absorption (24 hr, 73°F)	0.70	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.1	--	%	ISO 62
<b>Mechanical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus (73°F)	2.47E+6	2.09E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	32600	24800	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.2	3.0	%	ISO 527-2
Flexural Modulus (73°F)	2.47E+6	2.03E+6	psi	ISO 178
Flexural Stress (73°F)	47600	36500	psi	ISO 178
Poisson's Ratio (73°F)	0.33	--		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	6.2	5.2	ft·lb/in <sup>2</sup>	
-22°F	6.2	5.7	ft·lb/in <sup>2</sup>	
73°F	6.7	6.2	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	37	35	ft·lb/in <sup>2</sup>	
-22°F	39	35	ft·lb/in <sup>2</sup>	
73°F	41	39	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength				ISO 180/1A
-40°F	5.2	5.2	ft·lb/in <sup>2</sup>	
-22°F	6.7	5.7	ft·lb/in <sup>2</sup>	
73°F	6.7	6.2	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)	498	493	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	480	473	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3



CLTE - Flow (73 to 131°F, 0.0787 in)	8.9E-6	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	3.8E-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)	640	610	V/mil	IEC 60243-1

### Processing Information

<b>Injection</b>	<b>Dry Unit</b>
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

### Notes

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

