

## Vydyne® B 30 GF BK EST K1

Ascend Performance Materials Operations LLC - *Polyamide 6*

### General Information

#### Product Description

Vydyne B 30 GF BK EST K1 is standard flow, heat stabilized, 30% 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, 30% Filler by Weight
Additive	• Heat Stabilizer • Lubricant
Features	• Chemical Resistant • Good Flow • Lubricated • Gasoline Resistant • Heat Stabilized • General Purpose • High Heat Resistance
Automotive Specifications	• RENAULT AS21
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID	• PA6-GF30

### Properties <sup>1</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	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	0.30	--	%	
Water Absorption (24 hr, 73°F)	1.3	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.33E+6	870000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	24700	15200	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.0	6.5	%	ISO 527-2
Flexural Modulus (73°F)	1.49E+6	827000	psi	ISO 178
Flexural Stress (73°F)	35500	19600	psi	ISO 178
Poisson's Ratio (73°F)	0.35	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	4.6	4.4	ft·lb/in <sup>2</sup>	
-22°F	6.7	5.2	ft·lb/in <sup>2</sup>	
73°F	6.7	9.5	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	36	36	ft·lb/in <sup>2</sup>	
-22°F	36	43	ft·lb/in <sup>2</sup>	
73°F	42	47	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength				ISO 180/1A
-40°F	4.4	4.8	ft·lb/in <sup>2</sup>	
-22°F	5.2	5.7	ft·lb/in <sup>2</sup>	
73°F	6.2	10	ft·lb/in <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	428	426	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	405	387	°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)	4.7E-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)	710	660	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	194 to 212 °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.

