

Vydyne® B 50 GF BK EST K1

polyamide 6



Vydyne B 50 GF BK EST K1 is standard flow, heat stabilized, 50% glass-fiber reinforced PA6 resin. Available in black, this product is also lubricated for improved machine feed and flow.

General

Regional Availability	• North America	• Europe	• Asia Pacific
Additive	• Heat Stabilizer	• Lubricant	
Features	• Chemical Resistant • Good Flow	• Gasoline Resistant • High Heat Resistance	• General Purpose • Lubricated
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.56	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.7	*	%	
Flow : 23°C, 2.00 mm	0.4	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1.1	*	%	
Equilibrium, 23°C, 50% RH	1.4	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	15800	10800	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	220	150	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.5	5.5	%	ISO 527-2
Flexural Modulus (23°C)	15800	9900	MPa	ISO 178
Flexural Strength (23°C)	333	202	MPa	ISO 178
Poisson's Ratio (23°C)	0.34		-	ISO 527-2

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	18	23	kJ/m ²	
-30°C	16	16	kJ/m ²	
-40°C	15	15	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	100	99	kJ/m ²	
-30°C	100	96	kJ/m ²	
-40°C	99	94	kJ/m ²	

Vydyne® B 50 GF BK EST K1

polyamide 6



Notched Izod Impact Strength

ISO 180/1A

+23°C	17	23	kJ/m²
-30°C	17	23	kJ/m²
-40°C	16	15	kJ/m²

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	210	204	°C	
0.45 MPa, Unannealed	219	218	°C	
Melting Temperature	220	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	16	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	75	*	E-6/K	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	24	22	kV/mm	IEC 60243
Comparative Tracking Index (3.00 mm)	450		V	IEC 60112

Flammability	Value	Test Standard
Flammability		UL 94
1.50 mm	HB	
3.00 mm	HB	

Injection	Value	Unit
Drying Temperature	80 - 90	°C
Drying Time	≥ 3	h
Rear Temperature	230 - 280	°C
Middle Temperature	230 - 280	°C
Front Temperature	230 - 280	°C
Nozzle temperature	230 - 280	°C
Processing (Melt) Temperature	230 - 280	°C
Mold Temperature	80 - 90	°C

