

Vydyne® STAT B 40 FC BK

polyamide 6



Vydyne STAT B 40 FC BK is standard flow 40% carbon-fiber reinforced PA6 resin. Available in black, it is specifically designed for high stiffness and strength. This product is also electrically conductive.

General

Regional Availability	• North America	• Europe	• Asia Pacific
Additive	• Lubricant		
Features	• Chemical Resistant • Good Dimensional Stability • High Tensile Strength	• Gasoline Resistant • Good Flow • Lubricated	• General Purpose • Good Stiffness
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.31	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.5	*	%	
Flow : 23°C, 2.00 mm	0.2	*	%	
Water Absorption				ISO 62
Equilibrium, 23°C, 50% RH	1.9	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	23500	16500	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	240	200	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	1.5	3.5	%	ISO 527-2

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength, +23°C	11	16	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength, +23°C	100	-	kJ/m ²	ISO 179/1eU

Thermal

	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	210	-	°C	
0.45 MPa, Unannealed	220	-	°C	
Melting Temperature	222	*	°C	ISO 11357-3

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Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	10	-	Ohm*m	IEC 60093

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

Injection	Value	Unit
Drying Temperature	80 - 100	°C
Drying Time	≥ 3	h
Rear Temperature	230 - 270	°C
Middle Temperature	230 - 275	°C
Front Temperature	230 - 275	°C
Nozzle temperature	230 - 275	°C
Processing (Melt) Temperature	230 - 275	°C
Mold Temperature	80 - 90	°C

