

Vydyne® STAT B 10 FC BK

Ascend Performance Materials Operations LLC - Polyamide 6

General Information

Product Description

Vydyne STAT B 10 FC BK is standard flow 10% carbon-fiber reinforced PA6 resin. Available in black, it is specifically designed for high stiffness and strength. This product is also electrically dissipative.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight
Additive	• Lubricant
Features	• Chemical Resistant • Gasoline Resistant • General Purpose • Good Dimensional Stability • Good Flow • Good Stiffness • High Tensile Strength • Lubricated
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID	• PA6-CF10

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.17	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.90	--	%	
Flow : 73°F, 0.0787 in	0.40	--	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	2.6	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.12E+6	754000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	18900	12300	psi	ISO 527-2
Tensile Strain (Break, 73°F)	4.0	8.0	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.9	3.3	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	29	--	ft·lb/in ²	ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	401	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	374	--	°F	ISO 75-2/A
Melting Temperature	432	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (0.0394 in)	1.0E+8	--	ohms·cm	IEC 60093
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.06 in	HB	--		
0.12 in	HB	--		

Processing Information

Injection	Dry Unit
Drying Temperature	176 to 212 °F
Drying Time	> 3.0 hr
Rear Temperature	446 to 518 °F
Middle Temperature	446 to 527 °F
Front Temperature	446 to 527 °F
Nozzle Temperature	446 to 527 °F



Processing (Melt) Temp	446 to 527 °F
Mold Temperature	176 to 194 °F

Notes

¹ Typical properties: these are not to be construed as specifications.

