

Vydyne® STAT A 40 FC BK

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Vydyne STAT A 40 FC BK is standard flow 40% carbon-fiber reinforced PA66 resin. Available in black, it is specifically designed for high stiffness and strength. This product is also electrically conductive.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Carbon Fiber, 40% 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	• PA66-CF40		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.31	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.30	--	%	
Flow : 73°F, 0.0787 in	0.10	--	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	1.6	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	3.63E+6	2.61E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	37700	31200	psi	ISO 527-2
Tensile Strain (Break, 73°F)	1.5	2.5	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength (73°F)	5.2	7.1	ft·lb/in ²	ISO 180/1A
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	491	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	482	--	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (0.0394 in)	1.0E+3	--	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	194 to 230 °F
Drying Time	> 3.0 hr
Rear Temperature	518 to 536 °F
Middle Temperature	518 to 563 °F
Front Temperature	518 to 563 °F
Nozzle Temperature	518 to 563 °F
Processing (Melt) Temp	518 to 563 °F
Mold Temperature	158 to 194 °F

