Vydyne® STAT B 20 FC BK

Ascend Performance Materials Operations LLC - *Polyamide 6*

General Information

Product Description

Vydyne STAT B 20 FC BK is standard flow, 20% carbon-fiber reinforced PA6 resin. This product shows high stiffness and strength. It is also electrically conductive.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight		
Additive	• Lubricant		
Features	• Bromine Free • Chemical Resistant • General Purpose • Good Dimensional Stability • Good Electrical Properties • Good Processability	• Good Rigidity • Good Stiffness • Good Strength • Good Tensile Strength • Halogen Free • Homopolymer	• Lubricated • Medium Viscosity • Non-Corrosive • Oil Resistant
Agency Ratings	• ISO 1043 PA6 20CF		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA6-CF20		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.22	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow : 73°F, 0.0787 in	0.40	%	
Flow : 73°F, 0.0787 in	0.20	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	2.3	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	1.86E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	22500	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.0	%	ISO 527-2
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (73°F)	4.0	ft·lb/in²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	410	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	401	°F	ISO 75-2/A
Melting Temperature	432	°F	ISO 11357-3
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity (0.0394 in)	1.0E+3	ohms·cm	IEC 60093
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.031 in	HB		
0.06 in	HB		
0.13 in	HB		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 230	°F
Drying Time	3.0 to 4.0	hr

Rear Temperature	446 to 491 °F
Middle Temperature	455 to 500 °F
Front Temperature	464 to 500 °F
Nozzle Temperature	464 to 500 °F
Processing (Melt) Temp	464 to 500 °F
Mold Temperature	158 to 203 °F

Notes

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