Vydyne® BG10HU

Ascend Performance Materials Operations LLC - *Polyamide 6*

General Information

Product Description			
Vydyne BG10HU is an UV and heat stabilized 50% glass fiber reinforced PA6 for injection molded applications.			
General			
Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer	• Mold Release	
Features	• Heat Stabilized	• High Rigidity	• High Strength
Agency Ratings	• ISO 1043 PA6 GF50		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA6-GF50		

Properties [1]

Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.55	g/cm³	ISO 1183
Water Absorption (Saturation, 73°F)	4.5	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.60	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	2.03E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	32500	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.2	%	ISO 527-2
Flexural Modulus (73°F)	1.91E+6	psi	ISO 178
Flexural Stress (73°F)	46400	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	7.1	ft·lb/in²	
73°F	8.6	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	48	ft·lb/in²	
73°F	48	ft·lb/in²	
Notched Izod Impact Strength			ISO 180/1A
-40°F	6.7	ft·lb/in²	
-22°F	7.1	ft·lb/in²	
73°F	8.6	ft·lb/in²	
Unnotched Izod Impact Strength			ISO 180/1U
-22°F	43	ft·lb/in²	
73°F	43	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
CLTE - Flow (73 to 131°F, 0.0787 in)	6.7E-6	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	4.6E-5	in/in/°F	ISO 11359-2
RTI Elec			UL 746B
0.030 in	149	°F	
0.06 in	149	°F	
0.12 in	149	°F	
RTI Imp			UL 746B

0.030 in	149	°F	
0.06 in	149	°F	
0.12 in	149	°F	
RTI Str			UL 746B
0.030 in	149	°F	
0.06 in	149	°F	
0.12 in	149	°F	

Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity (0.0394 in)	1.0E+16	ohms·cm	IEC 60093
Comparative Tracking Index (0.118 in)	500	V	IEC 60112

Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.030 in	HB		
0.06 in	HB		
0.12 in	HB		
Glow Wire Flammability Index (0.08 in)	1200	°F	IEC 60695-2-12
Oxygen Index	25	%	ISO 4589-2

Processing Information

Injection	**Nominal Value**	**Unit**
Drying Temperature	176	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.20	%
Rear Temperature	446 to 464	°F
Middle Temperature	464 to 482	°F
Front Temperature	464 to 518	°F
Processing (Melt) Temp	464 to 518	°F
Mold Temperature	140 to 176	°F

Notes

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