Vydyne® R550H BK0944

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Vydyne R550H BK0944 is a general purpose, 50% glass-filled, heat-stabilized PA66 based resin designed for injection molding applications. R550H BK0944 has excellent laser marking characteristics and offers improved flow with a black surface finish and maintains the excellent resistance typical of PA66 in chemicals, machine and motor oils, solvents, and gasoline.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	• Mold Release
Features	• Good Flow • Heat Aging Resistant	• Heat Stabilized • Laser Markable	• Lubricated
Agency Ratings	• ASTM D4066 PA012G50	• ASTM D6779 PA012G50	• SAE J1639 PA1116
Automotive Specifications	• GM GMW3038P-PA66-GF50H	• GM GMW3038P-PA66-GF50J	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF50		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.58	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.80	--	%	
Flow : 73°F, 0.0787 in	0.30	--	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	1.5	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	2.71E+6	1.81E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	31900	22800	psi	ISO 527-2
Tensile Strain (Break, 73°F)	1.9	3.6	%	ISO 527-2
Flexural Modulus (73°F)	2.32E+6	1.75E+6	psi	ISO 178
Flexural Stress (73°F)	49200	35100	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	5.7	5.7	ft·lb/in²	
-22°F	5.7	6.2	ft·lb/in²	
73°F	6.7	8.6	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	34	36	ft·lb/in²	
-22°F	35	37	ft·lb/in²	
73°F	40	41	ft·lb/in²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	6.7	7.1	ft·lb/in²	
-22°F	6.2	7.1	ft·lb/in²	
73°F	7.1	8.1	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	500	498	°F	ISO 75-2/B

Deflection Temperature Under Load (264 psi, Unannealed)	489	480	°F	ISO 75-2/A
Melting Temperature	504	--	°F	ISO 11357-3
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Electric Strength (0.0394 in)	660	--	V/mil	IEC 60243-1

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	< 4.0	hr
Suggested Max Moisture	< 0.20	%
Suggested Max Regrind	25	%
Rear Temperature	536 to 590	°F
Middle Temperature	536 to 590	°F
Front Temperature	536 to 590	°F
Nozzle Temperature	536 to 590	°F
Processing (Melt) Temp	545 to 581	°F
Mold Temperature	149 to 203	°F

Notes

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