



Vydyne® R862H BK0676

Ascend Performance Materials Operations LLC - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Vydyne R862H BK0676 is a general-purpose, glass fiber and mineral-reinforced, heat-stabilized PA66 resin. Available in black, this product is also lubricated for improved flow and offers superior surface appearance.

Glass fiber and mineral-reinforced Vydyne resins provide higher heat distortion temperature, resistance to creep and better dimensional stability when compared with unreinforced PA66. These products have good chemical resistance to a broad range of chemicals including gasoline, hydraulic fluids and most solvents.

Typical Applications/End Uses:

Vydyne R862H BK0676 can be successfully used in a wide range of injection-molding engineering applications. Typical parts include lower cowl top covers, radiator shrouds, fans and mirror brackets, cylinder head covers; and industrial applications such as gears, bearing shells, covers and housings.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber	• Mineral	
Additive	• Heat Stabilizer	• Lubricant	
Features	• Creep Resistant • Good Dimensional Stability	• Good Flow • Heat Stabilized	• Lubricated
Uses	• Automotive Under the Hood		
Agency Ratings	• ASTM D4066 PA114R40	• ASTM D6779 PA084R40	
Automotive Specifications	• HYUNDAI MS211-36 Type C		
UL File Number	• E70062		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.47	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.1	--	%	
Flow : 73°F, 0.0787 in	0.40	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	1.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.52E+6	1.13E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	21600	14200	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.2	2.2	%	ISO 527-2
Flexural Modulus (73°F)	1.57E+6	812000	psi	ISO 178
Flexural Stress (73°F)	31900	17400	psi	ISO 178
Poisson's Ratio	0.40	--		ISO 527-2

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Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	2.9	2.9	ft·lb/in ²	
73°F	2.9	4.8	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	22	24	ft·lb/in ²	
73°F	23	23	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180
-22°F	2.9	3.3	ft·lb/in ²	
73°F	3.3	5.2	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	491	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	453	--	°F	
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.0E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	3.7E-5	--	in/in/°F	ISO 11359-2

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	4.0	hr
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.