

Vydyne® R530HR BK652

Polyamide 66

Ascend Performance Materials Operations LLC

Message:

Vydyne R530HR is specifically formulated to give superior hydrolysis resistance for demanding automotive cooling system components. This product has demonstrated more than twice the tensile strength and elongation retention of standard 30% glass-fiber reinforced PA66 after 3,500 hours of aging in automotive coolant at 120° C. Vydyne R530HR demonstrates similar property retention benefits at 130° C for 1,000 hours of coolant aging as well.

Typical Applications/End Uses:

To come

General Information				
Filler / Reinforcement		Glass Fiber,30% Filler by Weight		
Additive		Heat Stabilizer		
		Lubricant		
Features		Antifreeze Resistant		
		Fatigue Resistant		
		Gasoline Resistance		
		Good Chemical Resistance		
		Heat Stabilized		
		High Flow		
		Lubricated		
		Solvent Resistant		
Uses		Automotive Under the Hood		
Agency Ratings		ASTM D 4066 PA0121G30		
		ASTM D 6779 PA0121G30		
UL File Number		E70062		
Appearance		Black		
Forms		Pellets		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.90	--	%	
Flow : 23°C, 2.00 mm	0.40	--	%	
Water Absorption				ISO 62
23°C, 24 hr	0.90	--	%	
Equilibrium, 50% RH	1.9	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method

Tensile Modulus (23°C)	9650	7100	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	185	145	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	4.0	5.0	%	ISO 527-2
Flexural Modulus (23°C)	9000	5500	MPa	ISO 178
Flexural Stress (23°C)	270	190	MPa	ISO 178
Poisson's Ratio (23°C)	0.40	--		ISO 527
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-30°C	10	11	kJ/m ²	
23°C	11	16	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179
-30°C	87	110	kJ/m ²	
23°C	95	110	kJ/m ²	
Notched Izod Impact Strength				ISO 180
-30°C	10	11	kJ/m ²	
23°C	12	13	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	258	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	247	--	°C	ISO 75-2/A
Melting Temperature	260	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	2.2E-5	--	cm/cm/°C	
Transverse : 23 to 55°C, 2.00 mm	1.1E-4	--	cm/cm/°C	
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	4.0		hr	
Suggested Max Regrind	25		%	
Rear Temperature	280 to 310		°C	
Middle Temperature	280 to 310		°C	
Front Temperature	280 to 310		°C	
Nozzle Temperature	280 to 310		°C	
Processing (Melt) Temp	285 to 305		°C	
Mold Temperature	65.0 to 95.0		°C	

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