

Vydyne® R530HR BK652 polyamide 66



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				
Material Status	• Commercial: Active			
Availability	• Asia Pacific	• Europe	• North America	
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 : 73°F, 0.0787 in	0.90	--	%	
Flow : 73°F, 0.0787 in	0.40	--	%	
Water Absorption (73°F, 24 hr)	0.90	--	%	ISO 62
Water Absorption (Equilibrium, 50% RH)	1.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.40E+6	1.03E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	26800	21000	psi	ISO 527-2
Tensile Strain (Break, 73°F)	4.0	5.0	%	ISO 527-2
Flexural Modulus (73°F)	1.31E+6	798000	psi	ISO 178
Flexural Stress (73°F)	39200	27600	psi	ISO 178
Poisson's Ratio (73°F)	0.40	--		ISO 527

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	4.9	5.2	ft·lb/in ²	
73°F	5.3	7.6	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	41	50	ft·lb/in ²	
73°F	45	52	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180
-22°F	4.8	5.2	ft·lb/in ²	
73°F	5.7	6.2	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	496	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	477	--	°F	
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.2E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.9E-5	--	in/in/°F	ISO 11359-2
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

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

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



North America

+1 888 927 2363

Europe

+32 10 608 600

Asia

+86 21 6340 3300

Disclaimer of Warranty and Liability

NOTICE: Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Ascend Performance Materials Operations LLC makes no representations or warranties as to the completeness or accuracy thereof.

Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Ascend Performance Materials Operations LLC be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information or the products to which information refers. Nothing contained herein is to be construed as a recommendation to use any product, equipment or formulation in conflict with any patent, and Ascend Performance Materials Operations LLC makes no representation or warranty, express or implied, that use thereof will not infringe any patent. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers.