Vydyne® R530HR BK652

polyamide 66

Vydyne R530HR BK0652 is a 30% glass-filled, heat-stabilized PA66 based resin designed for injection molding applications. It was specifically developed to withstand long term exposure to coolants at temperatures up to 135°C. R530HR BK0652 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

Additive	• Heat Stabilizer	• Lubricant	
Features	• Antifreeze Resistant	• Chemical Resistant	• Fatigue Resistant
	• Gasoline Resistant	• Heat Stabilized	• High Flow
	• Hydrolysis Resistant	• Lubricated	• Solvent Resistant
Agency Rating	• ASTM, D4066 PA012G30	• ASTM, D6779 PA012G30	
Automotive Specifications	• BMW GS 93016	• Chery Motor Q-SQR.S1-33-2012 CMP.PA66.G6	• Mahle SD2-181 (AR.06576) Rev. 7
	• Mercedes-Benz DBL5406-PV21 (compliance)	• Mercedes-Benz DBL5406-PV22 (compliance)	• Renault AS26
	• Stellantis 01378_22_01205	• Stellantis MS-DB-41 CPN 4018	• Valeo NVB 15009 Class 3
	• VinFast VFDST00000300	• VW TL 52682 (compliance)	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	dry	cond.	Unit	Test Standard
Density	1.37	-	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.2	*	%	
Flow : 23°C, 2.00 mm	0.5	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1	*	%	
Equilibrium, 23°C, 50% RH	1.9	*	%	

Mechanical	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	10100	7300	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	179	126	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.8	7	%	ISO 527-2
Flexural Modulus (23°C)	9300	6600	MPa	ISO 178
Flexural Strength (23°C)	247	162	MPa	ISO 178
Poisson's Ratio (23°C)	0.34			ISO 527-2

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Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	12	17	kJ/m²	
-30°C	11	11	kJ/m²	
-40°C	10	10	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	87	103	kJ/m²	
-30°C	70	84	kJ/m²	
-40°C	67	74	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	12	16	kJ/m²	
-30°C	10	11	kJ/m²	
-40°C	10	11	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	249	245	°C	
0.45 MPa, Unannealed	260	260	°C	
Melting Temperature	260	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	23	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	81	*	E-6/K	

Electrical	Value	Unit	Test Standard
Comparative Tracking Index (3.00 mm)	600	V	IEC 60112

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4	h
Rear Temperature	280 - 310	°C
Middle Temperature	280 - 310	°C
Front Temperature	280 - 310	°C
Nozzle temperature	280 - 310	°C
Processing (Melt) Temperature	285 - 305	°C
Mold Temperature	65 - 95	°C

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