

Vydyne® R530HT BK02

polyamide 66



Vydyne R530HT BK02 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 elevated temperatures up to 190°C. R530HT BK02 offers improved flow with an improved black surface finish and maintains the excellent resistance typical of PA66 in chemicals, machine and motor oils, solvents, and gasoline.

General

Regional Availability	• North America	• Europe	• Asia Pacific
Additive	• Heat Stabilizer	• Lubricant	
Features	• Antifreeze Resistant • Gasoline Resistant • Lubricated	• Chemical Resistant • Heat Stabilized • Solvent Resistant	• Fatigue Resistant • High Flow
Agency Rating	• ASTM, D4066 PA114G30	• ASTM, D6779 PA084G30	
Automotive Specifications	• Delphi SD2-424	• Mahle Behr SD2-424 rev 2	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.38	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.9	*	%	
Flow : 23°C, 2.00 mm	0.4	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1.5	*	%	
Equilibrium, 23°C, 50% RH	1.9	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	10600	5900	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	185	115	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.3	7.5	%	ISO 527-2
Flexural Modulus (23°C)	9300	6100	MPa	ISO 178
Flexural Strength (23°C)	257	144	MPa	ISO 178
Poisson's Ratio (23°C)	0.34		-	ISO 527-2

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	12	14	kJ/m ²	
-30°C	9.9	9.4	kJ/m ²	

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-40°C	10	9.3	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	80	93	kJ/m²	
-30°C	67	74	kJ/m²	
-40°C	68	70	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	10	14	kJ/m²	
-30°C	9.4	11	kJ/m²	
-40°C	9.3	9.8	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	232	229	°C	
0.45 MPa, Unannealed	256	254	°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	91	*	E-6/K	

Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	8.4E12	4.7E9	Ohm*m	IEC 60093

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

