

Vydyne® R530HT BK02

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

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

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 • Chemical Resistant • Fatigue Resistant	• Gasoline Resistant • Heat Stabilized • High Flow	• Lubricated • Solvent Resistant
Agency Ratings	• ASTM D4066 PA114G30	• ASTM D6779 PA084G30	
Automotive Specifications	• CHERRY Q/SQR.S1-33-2012 CMP.PA66.G6	• MAHLE BEHR SD2-424 ¹	• VOLKSWAGEN PV 3936
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF30		

Properties ²

Physical	Dry	Conditioned	Unit	Test Method
Density	1.38	--	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 (24 hr, 73°F)	1.5	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.54E+6	856000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	26800	16700	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.3	7.5	%	ISO 527-2
Flexural Modulus (73°F)	1.35E+6	885000	psi	ISO 178
Flexural Stress (73°F)	37300	20900	psi	ISO 178
Poisson's Ratio (73°F)	0.34	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	4.8	4.4	ft·lb/in ²	
-22°F	4.7	4.5	ft·lb/in ²	
73°F	5.7	6.7	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	32	33	ft·lb/in ²	
-22°F	32	35	ft·lb/in ²	
73°F	38	44	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	4.4	4.7	ft·lb/in ²	
-22°F	4.5	5.2	ft·lb/in ²	



73°F	4.8	6.7	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	493	489	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	450	444	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.3E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.1E-5	--	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (0.0394 in)	8.4E+14	4.7E+11	ohms·cm	IEC 60093

Processing Information

Injection	Dry Unit
Drying Temperature	176 °F
Drying Time	4.0 hr
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 (AR 06563) Rev. 2

² Typical properties: these are not to be construed as specifications.

