



Vydyne® R550HT BK02

Ascend Performance Materials Operations LLC - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Vydyne R550HT BK02 is a 50% glass-filled, heat-stabilized PA66 based resin. Available in black, this product is also lubricated for improved flow and offers superior surface appearance. Specifically designed for high-temperature applications, Vydyne R550HT BK02 can withstand elevated temperatures up to 190°C for an extended period of time.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Additive	• Heat Stabilizer • Lubricant
Features	• Good Mold Release • High Flow • High Strength • Heat Stabilized • High Rigidity • Lubricated
Uses	• Automotive Under the Hood • Gears • High Temperature Applications
Agency Ratings	• ASTM D4066 PA012G50 • ASTM D6779 PA012G50
UL File Number	• E70062
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.58	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.50	%	
Flow : 0.0787 in	0.040	%	
Water Absorption (24 hr, 73°F)	0.50	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.2	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	2.47E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	33400	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.3	%	ISO 527-2
Flexural Modulus (73°F)	2.32E+6	psi	ISO 178
Flexural Stress (73°F)	50800	psi	ISO 178
Poisson's Ratio	0.40		ISO 527
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	6.7	ft-lb/in ²	
73°F	7.1	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	43	ft-lb/in ²	
73°F	45	ft-lb/in ²	
Notched Izod Impact Strength			ISO 180
-22°F	7.6	ft-lb/in ²	
73°F	8.1	ft-lb/in ²	

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	491	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	468	°F	ISO 75-2/A
Melting Temperature	500	°F	ISO 11357-3

Flammability	Nominal Value	Unit	Test Method
Burning Rate (0.0787 in, Self-Extinguishing)	0.0	in/min	ISO 3795

Processing Information

Injection	Nominal Value	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

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