

## Ascend Performance Materials Vydyne® R533H BK10A0 Nylon 66, 33% Glass Reinforced, Conditioned

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66 , 30% Glass Fiber Filled

### Material Notes:

Vydyne® R533H BK10A0 is 33% glass-fiber reinforced, hydrolysis-resistant, heat-stabilized PA66 resin. Available in black, it is specifically designed to maximize the retention of physical properties when exposed to anti-freeze solutions at elevated temperatures. This product is lubricated for improved machine feed and flow. Glass-reinforced Vydyne resins provide higher heat distortion temperature, resistance to creep and better dimensional stability when compared with unreinforced PA66. These products have good chemical resistance to a broad range of chemicals including gasoline, hydraulic fluids and most solvents. Vydyne R533H BK10A0 is heat-stabilized to minimize oxidative degradation of the polymer when exposed to elevated temperatures in service. This product provides improved retention of physical properties under exposure to long-term heat. Also, Vydyne R533H BK10A0 has excellent knit-line strength and fatigue resistance, which is essential for cycle testing with anti-freeze solutions. Typical Applications/End Uses: Vydyne R533H BK10A0 has been used for several under-the-hood automotive applications, motor housings for power tools and garden appliance. This resin has also been used in miscellaneous brackets, gears and clips that require high rigidity and strength. Availability:Asia PacificEuropeNorth AmericaFiller/Reinforcement:Glass Fiber, 33% Filler by WeightAdditive:Heat StabilizerLubricant Features: Good FlowGood Mold ReleaseHeat Stabilized High RigidityHigh StrengthHydrolysis Resistant Lubricated Uses: Automotive Under the HoodGearsHousingsPower/Other Tools Appearance: BlackForms: PelletsProcessing Method: Injection MoldingInformation provided by Ascend Performance Materials.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Ascend-Performance-Materials-Vydyne-R533H-BK10A0-Nylon-66-33-Glass-Reinforced-Conditioned.php](http://www.lookpolymers.com/polymer_Ascend-Performance-Materials-Vydyne-R533H-BK10A0-Nylon-66-33-Glass-Reinforced-Conditioned.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.80 % @Time 86400 sec	0.80 % @Time 24.0 hour	ISO 62
Moisture Absorption at Equilibrium	1.7 %	1.7 %	50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0040 cm/cm @Diameter 2.00 mm	0.0040 in/in @Diameter 0.0787 in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0090 cm/cm @Diameter 2.00 mm	0.0090 in/in @Diameter 0.0787 in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	145 MPa	21000 psi	ISO 527-2
Elongation at Break	5.0 %	5.0 %	ISO 527-2
Tensile Modulus	7.90 GPa	1150 ksi	ISO 527-2

Mechanical Properties Flexural strength	Metric 200 MPa	English 29000 psi	Comments ISO 178
Flexural Modulus	6.50 GPa	943 ksi	ISO 178
Izod Impact, Notched (ISO)	12.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	5.71 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180
	14.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	6.66 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180
Charpy Impact Unnotched	8.50 J/cm <sup>2</sup> @Temperature -30.0 °C	40.4 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
	9.00 J/cm <sup>2</sup> @Temperature 23.0 °C	42.8 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	1.20 J/cm <sup>2</sup> @Temperature -30.0 °C	5.71 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eA
	1.40 J/cm <sup>2</sup> @Temperature 23.0 °C	6.66 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eA

## Contact Songhan Plastic Technology Co.,Ltd.

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