

## Ascend Performance Materials Vydyne® R543H NT Nylon 66, 43% Glass Reinforced, Conditioned

Category: Polymer, Thermoplastic, Nylon, Nylon 66, Nylon 66, 40% Glass Fiber Filled

## **Material Notes:**

Vydyne® R543H NT is general-purpose, 43% glass-fiber reinforced PA66 resin. Available in natural, it is an injection-molding grade resin that is lubricated for machine feed, flow and mold release. Glass-reinforced Vydyne resins provide higher hear 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 many aliphatic and aromatic hydrocarbons found in most solvents, gasoline, hydraulic fluids, greases and machine oils. Vydyne R543H NT resin has tensile strength and modulus properties just below aluminum and zinc and can replace these metals in numerous applications due to an excellent balance of properties. Reduction in production costs, energy consumption and part weight are key advantages of Vydyne glass-reinforced PA66 resins over aluminum and/or zinc die-cast parts. Vydyne R543H NT is formulated to minimize the oxidative and thermal degradation of the PA66 polymer when exposed to elevated temperatures for extended periods of time. Vydyne R543H NT provides improved retention of physical properties under exposure to long-term heat. The continuous operating use temperature is 275°F, with short-term peak temperatures as high as 475°F. Availability:Asia PacificEuropeNorth AmericaFiller/Reinforcement:Glass Fiber, 43% Filler by WeightAdditive:Heat StabilizerLubricant Features:Gasoline ResistanceGood Chemical ResistanceGood Creep ResistanceGood Dimensional StabilityGood Impact ResistanceGood Mold ReleaseGrease ResistantHeat StabilizedHigh FlowHigh RigidityHigh StrengthHigh Tensile StrengthLubricatedOil ResistantSolvent Resistant Uses:Automotive Under the HoodGearsHousingsLawn and Garden EquipmentPower/Other ToolsAppearance: Natural ColorForms: 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-R543H-NT-Nylon-66-43-Glass-Reinforced-Conditioned.php

Physical Properties	Metric	English	Comments
Density	1.50 g/cc	0.0542 lb/in³	ISO 1183
Water Absorption	0.60 %	0.60 %	ISO 62
	@Time 86400 sec	@Time 24.0 hour	
Moisture Absorption at Equilibrium	1.5 %	1.5 %	50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	ISO 294-4
	@Diameter 2.00 mm	@Diameter 0.0787 in	
Linear Mold Shrinkage, Transverse	0.0090 cm/cm	0.0090 in/in	ISO 294-4
	@Diameter 2.00 mm	@Diameter 0.0787 in	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	170 MPa	24700 psi	ISO 527-2
Elongation at Break	4.0 %	4.0 %	ISO 527-2



Mechanical Properties	Metric	1540 ksi English	Comments
Flexural Strength	250 MPa	36300 psi	ISO 178
Flexural Modulus	9.40 GPa	1360 ksi	ISO 178
Izod Impact, Notched (ISO)	13.0 kJ/m²	6.19 ft-lb/in <sup>2</sup>	ISO 180
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	19.0 kJ/m²	9.04 ft-lb/in <sup>2</sup>	ISO 180
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	9.00 J/cm <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	9.50 J/cm <sup>2</sup>	45.2 ft-lb/in <sup>2</sup>	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.40 J/cm <sup>2</sup>	6.66 ft-lb/in <sup>2</sup>	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	2.00 J/cm <sup>2</sup>	9.52 ft-lb/in <sup>2</sup>	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	100 113

## **Contact Songhan Plastic Technology Co.,Ltd.**

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