

## Ascend Performance Materials Vydyne® R633H Nylon 66/6, 33% Glass Reinforced, Conditioned

Category: Polymer, Thermoplastic, Nylon, Nylon 6/66, Nylon 66/6, 30% Glass Fiber Reinforced

## **Material Notes:**

Vydyne® R633H is 33% glass-fiber reinforced PA66/6 copolymer resin for superior surface appearance. Available in natural, this injectionmolding grade resin is lubricated for machine feed and mold release. Vydyne R633H 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 PA66/6 resins over aluminum and/or zinc die cast parts. Vydyne R633H is specially formulated to minimize the oxidative and thermal degradation of the PA666/6 copolymer when exposed to elevated temperatures for extended periods of time. Product provides improved retention of physical properties under exposure to long term heat. Vydyne R633H provides a higher heat distortion temperature, better resistance to creep, higher impact and better dimensional stability compared with unreinforced PA66/6. This product also provides a combination of excellent surface appearance with high tensile and modulus properties. This property balance enables usage of Vydyne R633H in applications where aesthetics and performance are important. Typical Applications/End Uses: Vydyne R633H resin has been used for many under-the-hood automotive applications, motor housings for power tools, and garden appliances. These resins have also been used in miscellaneous brackets, gears and clips that require high rigidity and strength. Availability: Asia Pacific EuropeNorth America Filler/Reinforcement: Glass Fiber, 33% Filler by WeightAdditive:LubricantHeat Stabilizer Features:CopolymerGood Mold ReleaseGood Surface FinishHeat Stabilized High Tensile Strength Lubricated Uses: Automotive Under the HoodGears Housings Lawn and Garden Equipment Metal ReplacementPower/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-R633H-Nylon-666-33-Glass-Reinforced-Conditioned.php

Physical Properties	Metric	English	Comments
Density	1.39 g/cc	0.0502 lb/in³	ISO 1183
Water Absorption	1.3 %	1.3 %	ISO 62
	@Time 86400 sec	@Time 24.0 hour	
Moisture Absorption at Equilibrium	2.3 %	2.3 %	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	130 MPa	18900 psi	ISO 527-2
Elongation at Break	6.0 %	6.0 %	ISO 527-2



Mechanical Properties	Metric	English .	Comments
Flexural Strength	195 MPa	28300 psi	ISO 178
Flexural Modulus	6.80 GPa	986 ksi	ISO 178
Izod Impact, Notched (ISO)	19.0 kJ/m²	9.04 ft-lb/in²	ISO 180
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	22.0 kJ/m²	10.5 ft-lb/in <sup>2</sup>	ISO 180
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	9.10 J/cm <sup>2</sup>	43.3 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	9.20 J/cm <sup>2</sup>	43.8 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.50 J/cm <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	2.50 J/cm <sup>2</sup>	11.9 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

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

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