

Vydyne® R633H01

Ascend Performance Materials Operations LLC - *Polyamide 66/6 Copolymer*

General Information

Product Description

Vydyne R633H01 is 33% glass-fiber reinforced PA66/6 copolymer resin for superior surface appearance. Available in black, this injection-molding grade resin is lubricated for machine feed and mold release.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	
Features	• Copolymer	• Good Surface Finish	• High Tensile Strength
	• Good Mold Release	• Heat Stabilized	• Lubricated
Agency Ratings	• ASTM D4066 PA112G35	• FED L-P-410A	
	• ASTM D6779 PA082G35	• SAE J1639 PA1816 Z6	
Automotive Specifications	• STELLANTIS MS-DB-41 CPN3275	• STELLANTIS MS-DB-41 CPN4405	
UL File Number	• E70062		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66/6-GF33		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.39	--	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)	1.3	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.57E+6	1.16E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	26700	18900	psi	ISO 527-2
Tensile Strain (Break, 73°F)	4.0	6.0	%	ISO 527-2
Flexural Modulus (73°F)	1.28E+6	986000	psi	ISO 178
Flexural Stress (73°F)	37000	28300	psi	ISO 178
Poisson's Ratio (73°F)	0.40	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	5.2	7.1	ft·lb/in ²	
73°F	5.7	12	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	21	43	ft·lb/in ²	
73°F	24	44	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-22°F	5.7	9.0	ft·lb/in ²	
73°F	6.2	10	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	446	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	428	--	°F	ISO 75-2/A



Melting Temperature	451	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	8.3E-6	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.6E-5	--	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Arc Resistance (0.118 in)	PLC 5	--		ASTM D495
Comparative Tracking Index (0.118 in)	250 to 399	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746A
0.030 in	PLC 0	--		
0.06 in	PLC 0	--		
0.12 in	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR) (0.118 in)	PLC 2	--		UL 746A
Hot-wire Ignition (HWI)				UL 746A
0.030 in	PLC 4	--		
0.06 in	PLC 4	--		
0.12 in	PLC 3	--		
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.030 in	HB	--		
0.06 in	HB	--		
0.12 in	HB	--		

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

