

Vydyne® R535H BK0783

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Vydyne R535H BK0783 is a general purpose, 35% glass-filled, heat-stabilized PA66 based resin designed for injection molding applications. R535H BK0783 offers improved flow with a black surface finish and maintains the excellent resistance typical of PA66 in chemicals, machine and motor oils, solvents, and gasoline.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	
Features	• Antifreeze Resistant • Chemical Resistant • Fatigue Resistant	• Gasoline Resistant • Heat Stabilized • High Flow	• Lubricated • Solvent Resistant
Automotive Specifications	• CHERRY Q/SQR.S1-33-2012 CMP.PA66.G7 • FORD WSS-M4D673-B1	• GM GMW16270P-PA66-GF35 • GM GMW3038P-PA66-GF35H	• GM GMW3038P-PA66-GF35J
Processing Method	• Injection Molding		
Resin ID	• PA66-GF35		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.41	--	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)	0.80	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.6	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.68E+6	1.23E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	30500	21800	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.0	5.0	%	ISO 527-2
Flexural Modulus (73°F)	1.52E+6	1.02E+6	psi	ISO 178
Flexural Stress (73°F)	43500	29700	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	5.7	ft·lb/in ²	
73°F	5.7	6.7	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	33	40	ft·lb/in ²	
73°F	38	43	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-22°F	5.2	5.7	ft·lb/in ²	
73°F	5.7	6.7	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	500	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	482	--	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3



CLTE - Flow (73 to 131°F, 0.0787 in)	1.1E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.8E-5	--	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (0.0394 in)	1.0E+13	--	ohms·cm	IEC 60093
Electric Strength (0.0394 in)	510	--	V/mil	IEC 60243-1
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.0787 in)	0.0	--	in/min	ISO 3795
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

