

Vydyne® R533H BK0667

Ascend Performance Materials Operations LLC - *Polyamide 610 + PA 66*

General Information

Product Description

Vydyne R533H BK0667 is a 33% glass-filled, heat-stabilized PA66+PA610 based material designed for injection molding applications. It was specifically developed to withstand long term exposure to road salts, including enhanced calcium chloride resistance. R533H BK0667 offers standard flow with a black surface finish and maintains the excellent resistance typical of Polyamides in chemicals, machine and motor oils, solvents, and gasoline.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	
Features	• Chemical Resistant	• Crack Resistant	• Hydrolysis Resistant
	• Chlorine Resistant	• Heat Stabilized	• Lubricated
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• (PA66+PA610)-GF33		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.38	--	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)	1.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.57E+6	1.07E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	27600	19000	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.8	5.0	%	ISO 527-2
Flexural Modulus (73°F)	1.36E+6	769000	psi	ISO 178
Flexural Stress (73°F)	39200	17400	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	4.3	3.8	ft·lb/in ²	
73°F	5.2	6.2	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	30	30	ft·lb/in ²	
73°F	35	38	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-22°F	4.8	4.8	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)	428	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	428	--	°F	ISO 75-2/A
Melting Temperature	504	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.0E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	4.6E-5	--	in/in/°F	ISO 11359-2



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.

