Vydyne® R533H BK0667
polyamide 66

Vydyne R533H BK0667 is a black, 33% glass-filled polyamide resin for injection molding designed specifically to withstand exposure to calcium chloride for extended periods of time.

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 • Chlorine Resistant	• Crack Resistant • Heat Stabilized	• Hydrolysis Resistant • Lubricated
Uses	• Automotive Under the Hood • Gears	• Housings • Transmission Applications	
Automotive Specifications	• RENAULT AS27		
UL File Number	• E70062		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.38	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.90	--	%	
Flow : 23°C, 2.00 mm	0.40	--	%	
Water Absorption				ISO 62
24 hr, 23°C	0.80	--	%	
Equilibrium, 23°C, 50% RH	1.3	--	%	
Outdoor Suitability (Black)	f1	--		UL 746C

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	10700	6200	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	190	125	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.8	4.0	%	ISO 527-2
Flexural Modulus (23°C)	9400	5300	MPa	ISO 178
Flexural Stress (23°C)	270	120	MPa	ISO 178
Poisson's Ratio	0.40	--		ISO 527-2

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	9.0	8.0	kJ/m²	
23°C	11	13	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	64	64	kJ/m²	
23°C	73	79	kJ/m²	
Notched Izod Impact Strength				ISO 180
-30°C	10	10	kJ/m²	
23°C	12	14	kJ/m²	

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	220	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	220	--	°C	ISO 75-2/A
Melting Temperature	260	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	1.8E-5	--	cm/cm/°C	
Transverse : 23 to 55°C, 2.00 mm	8.3E-5	--	cm/cm/°C	

Injection	Dry	Unit
Drying Temperature	80	°C
Drying Time	4.0	hr
Suggested Max Regrind	25	%
Rear Temperature	280 to 310	°C
Middle Temperature	280 to 310	°C
Front Temperature	280 to 310	°C
Nozzle Temperature	280 to 310	°C
Processing (Melt) Temp	285 to 305	°C
Mold Temperature	65 to 95	°C

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

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