Vydyne® AVS4CF1 BK0877

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Vydyne AVS4CF1 BK0877 is a 50% glass filled PA66 based heat stabilized grade that provides improved NVH damping over standard glass-filled PA66.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Good Rigidity • Good Tensile Strength	• Heat Stabilized • High Flow	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF50		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.60	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.1	--	%	
Flow : 73°F, 0.0787 in	0.60	--	%	
Water Absorption (24 hr, 73°F)	0.80	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.1	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	2.47E+6	2.03E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	32200	24400	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.1	2.9	%	ISO 527-2
Flexural Modulus (73°F)	2.42E+6	2.00E+6	psi	ISO 178
Flexural Stress (73°F)	48200	38400	psi	ISO 178
Poisson's Ratio (73°F)	0.33	--		ISO 527-2
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	5.7	5.2	ft·lb/in²	
-22°F	6.2	5.2	ft·lb/in²	
73°F	7.1	6.7	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	36	34	ft·lb/in²	
-22°F	39	34	ft·lb/in²	
73°F	39	39	ft·lb/in²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	5.7	5.7	ft·lb/in²	
-22°F	6.7	5.7	ft·lb/in²	
73°F	7.1	6.7	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	500	493	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	480	475	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3

CLTE - Flow (73 to 131°F, 0.0787 in)	9.4E-6	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	3.9E-5	--	in/in/°F	ISO 11359-2
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Electric Strength (0.0394 in)	640	610	V/mil	IEC 60243-1

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.