

Vydyne® AVS1AF1 NT0840

polyamide 66



Vydyne AVS1AF1 NT0840 is a 50% glass fiber reinforced, heat-stabilized PA66 designed for injection molding applications. AVS1AF1 NT0840 offers improved flow with a natural color and maintains the excellent resistance typical of PA66 in chemicals, machine and motor oils, solvents, and gasoline. Application targets include automotive mounts, brackets and suspension components.

Vydyne AVS1AF1 NT0840 has been characterized in anisotropic tensile tests as well as anisotropic fatigue. Material data and models are available at Ascend Performance Materials and in Digimat®-MX.

General

Regional Availability	• North America	• Europe	• Asia Pacific
Additive	• Heat Stabilizer	• Lubricant	
Features	• General Purpose • Good Processability • High Tensile Strength	• Good Flow • Good Stiffness • Lubricated	• Good Heat Resistance • High Strength
UL File Number	• E70062		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.60	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.8	*	%	
Flow : 23°C, 2.00 mm	0.3	*	%	
Water Absorption, 23°C, 24 hr	1.16	*	%	ISO 62

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	17600	14300	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	254	205	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.3	3	%	ISO 527-2
Flexural Modulus (23°C)	16500	12200	MPa	ISO 178
Flexural Strength (23°C)	380	261	MPa	ISO 178
Poisson's Ratio (23°C)	0.36	-	-	ISO 527-2

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	16	19	kJ/m ²	
-30°C	16	16	kJ/m ²	
-40°C	16	16	kJ/m ²	

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Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	100	111	kJ/m²	
-30°C	100	102	kJ/m²	
-40°C	98	105	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	15	17	kJ/m²	
-30°C	16	16	kJ/m²	
-40°C	16	15	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	252	250	°C	
0.45 MPa, Unannealed	261	259	°C	
Melting Temperature	260	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	13	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	63	*	E-6/K	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	35	24	kV/mm	IEC 60243

