

Vydyne® AVS4AC5 BK0826

Ascend Performance Materials Operations LLC - Polyamide 66

General Information

Product Description

Vydyne AVS4AC5 BK0826 is part of Ascend's Anti-Vibration System portfolio. It is a 35% glass filled specialty compound that is specifically designed to provide a high level of energy absorption for critical NVH components.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Balanced Stiffness/Toughness • Chemical Resistant • Good Dimensional Stability	• Good Processability • Good Strength • Heat Stabilized	• Oil Resistant
Agency Ratings	• ASTM D4066 PA1100A5435	• ASTM D6779 PA0800A5445	• ISO 1043 PA GF35
Automotive Specifications	• GM GMW18603P-PA-GF35-T2	• RENAULT UB17	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF35		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.43	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.70	--	%	
Flow : 73°F, 0.0787 in	0.50	--	%	
Water Absorption (24 hr, 73°F)	0.90	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.67E+6	1.62E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	27400	23600	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.5	3.0	%	ISO 527-2
Flexural Modulus (73°F)	1.61E+6	1.68E+6	psi	ISO 178
Flexural Stress (73°F)	37700	34200	psi	ISO 178
Poisson's Ratio (73°F)	0.34	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	4.3	3.8	ft·lb/in ²	
-22°F	4.4	3.9	ft·lb/in ²	
73°F	4.8	4.3	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	32	25	ft·lb/in ²	
-22°F	32	25	ft·lb/in ²	
73°F	34	28	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	4.2	3.7	ft·lb/in ²	
-22°F	4.3	3.8	ft·lb/in ²	



73°F	4.6	4.3	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	464	444	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	356	354	°F	ISO 75-2/A
Melting Temperature	509	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	8.9E-6	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	4.0E-5	--	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	690	660	V/mil	IEC 60243-1

Processing Information

Injection	Dry Unit
Drying Temperature	176 °F
Drying Time	4.0 hr
Suggested Max Moisture	0.15 %
Rear Temperature	464 to 500 °F
Middle Temperature	536 to 572 °F
Front Temperature	536 to 572 °F
Nozzle Temperature	536 to 581 °F
Processing (Melt) Temp	527 to 563 °F
Mold Temperature	131 to 167 °F

Notes

¹ Typical properties: these are not to be construed as specifications.

