

Vydyne® AVS4BC1 BK0886

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Vydyne AVS4BC1 BK0886 is part of Ascend's Anti-Vibration System portfolio. AVS4BC1 BK0886 is a 35% glass filled PA66 specialty compound that is specifically designed to provide a good balance of energy absorption and mechanical stiffness for critical NVH components.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	
Features	• Balanced Stiffness/Toughness • Fatigue Resistant • Good Dimensional Stability	• Good Stiffness • Good Tensile Strength • Heat Stabilized	• Lubricated
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF35		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.42	--	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	0.20	--	%	
Water Absorption (24 hr, 73°F)	1.1	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.4	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.67E+6	1.44E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	28600	21900	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.7	3.0	%	ISO 527-2
Flexural Modulus (73°F)	1.61E+6	1.26E+6	psi	ISO 178
Flexural Stress (73°F)	41600	28000	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	4.8	4.1	ft·lb/in ²	
-22°F	4.8	4.1	ft·lb/in ²	
73°F	5.2	5.2	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	30	28	ft·lb/in ²	
-22°F	31	31	ft·lb/in ²	
73°F	36	39	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	4.2	4.2	ft·lb/in ²	
-22°F	4.3	4.5	ft·lb/in ²	
73°F	4.8	5.2	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method



Deflection Temperature Under Load (66 psi, Unannealed)	496	495	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	471	457	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.2E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	4.4E-5	--	in/in/°F	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	660	640	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	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.

