

Vydyne® 20NSP1 BLK

polyamide 66



Vydyne 20NSP1 BLK product description to come.

To come

Typical Applications/End Uses:

General				
Material Status	• Commercial: Active			
Availability	• Asia Pacific	• Europe	• North America	
Additive	• Lubricant	• Nucleating Agent		
Features	• Fast Molding Cycle • General Purpose • Good Mold Release	• Good Stiffness • High Rigidity • Lubricated	• Nucleated	
Uses	• Bearings • Cams • Connectors	• Fasteners • General Purpose • Housings	• Industrial Applications	
Agency Ratings	• ASTM D 4066 PA0131	• ASTM D 6779 PA0131	• FED L-P-410A	
RoHS Compliance	• RoHS Compliant			
Automotive Specifications	• ASTM D4000 PA131	• ASTM D4066 PA0131	• FEDERAL LP410A	
UL File Number	• E70062			
Appearance	• Black			
Forms	• Pellets			
Processing Method	• Injection Molding			

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.6	--	%	
Flow : 73°F, 0.0787 in	1.4	--	%	
Water Absorption (73°F, 24 hr)	1.2	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.4	--	%	ISO 62

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	551000	363000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	13800	8700	psi	ISO 527-2
Tensile Stress (Break, 73°F)	10900	7250	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	5.0	15	%	ISO 527-2
Nominal Tensile Strain at Break (73°F)	13	20	%	ISO 527-2
Flexural Modulus (73°F)	464000	189000	psi	ISO 178
Flexural Strength (73°F)	14500	5080	psi	ISO 178
Poisson's Ratio	0.40	--		ISO 527-2

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	2.4	2.4	ft·lb/in ²	
73°F	2.9	7.1	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	No Break	No Break		
73°F	No Break	No Break		
Notched Izod Impact Strength				ISO 180
-22°F	2.4	2.4	ft·lb/in ²	
73°F	2.9	7.1	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	446	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	194	--	°F	
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	5.6E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.6E-5	--	in/in/°F	ISO 11359-2
RTI Elec				UL 746
0.0280 in	266	--	°F	
0.0591 in	266	--	°F	
0.118 in	266	--	°F	
RTI Imp				UL 746
0.0280 in	167	--	°F	
0.0591 in	167	--	°F	
0.118 in	167	--	°F	
RTI Str				UL 746
0.0280 in	185	--	°F	
0.0591 in	185	--	°F	
0.118 in	185	--	°F	

Electrical	Dry	Conditioned	Unit	Test Method
Dielectric Strength (0.0394 in)	660	--	V/mil	IEC 60243
Arc Resistance (0.118 in)	PLC 5	--		ASTM D495
Comparative Tracking Index (0.118 in)	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.0280 in	PLC 0	--		
0.0591 in	PLC 0	--		
0.118 in	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR)	PLC 0	--		UL 746
Hot-wire Ignition (HWI)				UL 746
0.0280 in	PLC 4	--		
0.0591 in	PLC 3	--		
0.118 in	PLC 3	--		
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.0280 in	V-2	--		
0.0591 in	V-2	--		
0.118 in	V-2	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.0280 in	1470	--	°F	
0.0591 in	1470	--	°F	
0.118 in	1710	--	°F	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.0280 in	1290	--	°F	
0.0591 in	1290	--	°F	
0.118 in	1290	--	°F	
Oxygen Index	26	--	%	ISO 4589-2
Injection	Dry Unit			
Drying Temperature	< 158 °F			
Drying Time	1.0 to 3.0 hr			
Suggested Max Regrind	50 %			
Rear Temperature	500 to 536 °F			
Middle Temperature	518 to 545 °F			
Front Temperature	536 to 554 °F			
Nozzle Temperature	536 to 572 °F			
Processing (Melt) Temp	545 to 572 °F			
Mold Temperature	149 to 203 °F			

Notes

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