Vydyne® 22HSP NT
polyamide 66

Vydyne 22HSP NT product description to come. To come

Typical Applications/End Uses:

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Lubricant		
Features	• Fast Molding Cycle • Gasoline Resistance • General Purpose • Good Abrasion Resistance	• Good Chemical Resistance • Good Mold Release • Good Toughness • High Rigidity	• High Strength • Lubricated • Oil Resistant • Solvent Resistant
Uses	• Bearings • Bushings	• Cams • Connectors	• Housings • Industrial Applications
Agency Ratings	• ASTM D 4066 PA0111 • ASTM D 6779 PA0111	• FDA 21 CFR 177.1500 • FED L-P-410A	• MIL M-20693B
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• ASTM D4000 PA111 • ASTM D4066 PA0111 • FEDERAL LP410A • FORD WSK-M4D647-A	• FORD WSK-M4D647-A Color: Black • GM GMP.PA66.005 • GM GMP.PA66.005 Color: Black • NISSAN PA66-INX-1	• OPEL QK 002921 • SAE J1639 PA0121 Z6 • SAE J1639 PA0121 Z6 Color: Black
UL File Number	• E70062		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	2.0	--	%	
Flow : 73°F, 0.0787 in	2.2	--	%	
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)	450000	261000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	12300	7980	psi	ISO 527-2
Tensile Stress (Break, 73°F)	7980	5800	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	5.0	20	%	ISO 527-2
Nominal Tensile Strain at Break (73°F)	25	> 50	%	ISO 527-2
Flexural Modulus (73°F)	421000	145000	psi	ISO 178
Flexural Strength (73°F)	13800	4350	psi	ISO 178
Poisson's Ratio	0.40	--		ISO 527
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	2.4	3.3	ft·lb/in²	
73°F	2.9	9.5	ft·lb/in²	
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	3.3	ft·lb/in²	
73°F	2.9	9.5	ft·lb/in²	

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	392	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	158	--	°F	
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F)	5.6E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	5.6E-5	--	in/in/°F	ISO 11359-2
RTI Elec				UL 746
0.0280 in	284	--	°F	
0.0591 in	284	--	°F	
0.118 in	284	--	°F	
RTI Imp				UL 746
0.0280 in	203	--	°F	
0.0591 in	230	--	°F	
0.118 in	230	--	°F	
RTI Str				UL 746
0.0280 in	239	--	°F	
0.0591 in	257	--	°F	
0.118 in	257	--	°F	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Arc Resistance (0.118 in)	PLC 6	--		ASTM D495
Comparative Tracking Index (0.118 in)	400 to 599	--	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 4	--		
0.118 in	PLC 4	--		

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	1520	--	°F	
0.0591 in	1520	--	°F	
0.118 in	1760	--	°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	24	--	%	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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