

Vydyne® ECO366H NT0708

Polyamide 66

Ascend Performance Materials Operations LLC

Message:

Vydyne ECO366H NT0708 is a non-halogenated, unfilled, flame-retardant PA66 homopolymer designed with superior flow properties to assist in filling thin-walled, intricate parts. It is stabilized to provide heat stability up to 170°C for 1,000 hours. ECO366H NT0708 is also lubricated for machine feed and easy mold release and has an Underwriters Laboratories UL 94 flammability classification of V-0 at 0.4mm (0.016") thick.

General Information				
Additive	Lubricant			
	Flame retardancy			
Features	Good electrical performance			
	Good corrosion resistance			
	Good heat aging resistance			
	Good chemical resistance			
	Thermal Stability			
	Lubrication			
	Good demoulding performance			
	Flame retardant			
Uses	Flame retardancy			
	Lighting Applications			
	Electrical/Electronic Applications			
	Electrical components			
	Electrical housing			
	Electrical appliances			
	Industrial application			
	Active hinge			
	Fasteners			
	Switch			
	Connector			
	Automotive Electronics			
UL File Number		E70062		
Appearance		Natural color		
Forms		Particle		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method

Density	1.17	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Lateral flow: 23°C, 2.00mm	0.60	--	%	ISO 294-4
Traffic: 23°C, 2.00mm	0.90	--	%	ISO 294-4
Water Absorption				ISO 62
23°C, 24 hr	0.80	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Stress (Yield, 23°C)	83.0	58.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	4.0	5.0	%	ISO 527-2
Flexural Modulus (23°C)	3900	1350	MPa	ISO 178
Flexural Strength (23°C)	107	39.0	MPa	ISO 178
Poisson's Ratio	0.40	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	3.7	--	kJ/m ²	ISO 179/1eA
23°C	3.4	--	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	78	--	kJ/m ²	ISO 179/1eU
23°C	75	--	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	6.0	--	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	240	--	°C	ISO 75-2/B
1.8 MPa, not annealed	75.0	--	°C	ISO 75-2/A
Melting Temperature	265	--	°C	ISO 11357-3
RTI Elec				UL 746
0.40 mm	150	--	°C	UL 746
0.75 mm	150	--	°C	UL 746
1.5 mm	150	--	°C	UL 746
3.0 mm	150	--	°C	UL 746
RTI				UL 746
0.40 mm	130	--	°C	UL 746
0.75 mm	130	--	°C	UL 746
1.5 mm	130	--	°C	UL 746
3.0 mm	130	--	°C	UL 746
Electrical	Dry	Conditioned	Unit	Test Method

Volume Resistivity (0.750 mm)	1.0E+19	--	ohms·cm	IEC 60093
Dielectric Strength (1.00 mm)	20	--	kV/mm	IEC 60243
Arc Resistance (3.00 mm)	PLC 5	--		ASTM D495
Comparative Tracking Index (3.00 mm)	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.40 mm	PLC 0	--		UL 746
0.75 mm	PLC 0	--		UL 746
1.5 mm	PLC 0	--		UL 746
3.0 mm	PLC 0	--		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 0	--		UL 746
Hot-wire Ignition (HWI)				UL 746
0.40 mm	PLC 4	--		UL 746
0.75 mm	PLC 3	--		UL 746
1.5 mm	PLC 3	--		UL 746
3.0 mm	PLC 1	--		UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.40 mm	V-0	--		UL 94
0.75 mm	V-0	--		UL 94
1.5 mm	V-0	--		UL 94
3.0 mm	V-0	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.40 mm	960	--	°C	IEC 60695-2-12
0.75 mm	960	--	°C	IEC 60695-2-12
1.5 mm	960	--	°C	IEC 60695-2-12
3.0 mm	960	--	°C	IEC 60695-2-12
Glow Wire Ignition Temperature				IEC 60695-2-13
0.40 mm	960	--	°C	IEC 60695-2-13
0.75 mm	960	--	°C	IEC 60695-2-13
1.5 mm	800	--	°C	IEC 60695-2-13
3.0 mm	775	--	°C	IEC 60695-2-13
Injection	Dry	Unit		
Drying Temperature	80		°C	
Drying Time	4.0		hr	
Suggested Max Regrind	50		%	
Rear Temperature	260 - 290		°C	
Middle Temperature	260 - 290		°C	

Front Temperature	260 - 290	°C
Nozzle Temperature	260 - 290	°C
Processing (Melt) Temp	270 - 285	°C
Mold Temperature	65 - 95	°C

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