

## Starflam® 366H NT0708

Ascend Performance Materials Operations LLC - *Polyamide 66*

### General Information

#### Product Description

Starflam 366H NT0708 (formerly Vydyn® ECO366H NT0708) is an unfilled, heat stabilized PA66, containing a non-halogen flame retardant. 366H NT0708 is designed for electrical and electronic components and offers outstanding RTI Electrical performance of 150°C and UL94 V0 at 0.2mm thickness.

#### General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Additive	• Flame Retardant • Heat Stabilizer • Lubricant
Features	• Chemical Resistant • Good Mold Release • Ignition Resistant • Corrosion Resistant • Good Thermal Stability • Lubricated • Flame Retardant • Heat Aging Resistant • Good Electrical Properties • Heat Stabilized
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• TESLA TM-1006 V3 301000V
UL File Number	• E70062
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID	• PA66 FR

### Properties <sup>1</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density	1.17	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.2	--	%	
Flow : 73°F, 0.0787 in	0.90	--	%	
Water Absorption (24 hr, 73°F)	0.80	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	580000	276000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	12500	8120	psi	ISO 527-2
Tensile Stress (Break, 73°F)	12200	6240	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	4.0	22	%	ISO 527-2
Tensile Strain (Break, 73°F)	7.0	66	%	ISO 527-2
Flexural Modulus (73°F)	551000	232000	psi	ISO 178
Flexural Stress (73°F)	15800	5510	psi	ISO 178
Poisson's Ratio (73°F)	0.40	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	1.4	1.4	ft·lb/in <sup>2</sup>	
-22°F	1.4	1.9	ft·lb/in <sup>2</sup>	
73°F	1.4	2.9	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	33	38	ft·lb/in <sup>2</sup>	
-22°F	34	42	ft·lb/in <sup>2</sup>	
73°F	34	90	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength				ISO 180/1A
-40°F	1.4	1.9	ft·lb/in <sup>2</sup>	



-22°F	1.4	2.4	ft·lb/in <sup>2</sup>	
73°F	1.4	2.9	ft·lb/in <sup>2</sup>	
<b>Thermal</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (66 psi, Unannealed)	441	419	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	176	--	°F	ISO 75-2/A
Melting Temperature	504	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	3.3E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	3.7E-5	--	in/in/°F	ISO 11359-2
RTI Elec				UL 746B
0.016 in	302	--	°F	
0.030 in	302	--	°F	
0.06 in	302	--	°F	
0.12 in	302	--	°F	
RTI Imp				UL 746B
0.016 in	230	--	°F	
0.030 in	230	--	°F	
0.06 in	230	--	°F	
0.12 in	230	--	°F	
RTI Str				UL 746B
0.016 in	266	--	°F	
0.030 in	266	--	°F	
0.06 in	266	--	°F	
0.12 in	266	--	°F	
<b>Electrical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Volume Resistivity (0.0394 in)	1.0E+19	--	ohms·cm	IEC 60093
Electric Strength (0.0394 in)	760	610	V/mil	IEC 60243-1
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 746A
0.016 in	PLC 0	--		
0.030 in	PLC 0	--		
0.06 in	PLC 0	--		
0.12 in	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR) (0.118 in)	PLC 0	--		UL 746A
Hot-wire Ignition (HWI)				UL 746A
0.016 in	PLC 4	--		
0.030 in	PLC 3	--		
0.06 in	PLC 3	--		
0.12 in	PLC 1	--		
<b>Flammability</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating				UL 94
0.0079 in	V-0	--		
0.016 in	V-0	--		
0.030 in	V-0	--		
0.06 in	V-0	--		
0.12 in	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.016 in	1760	--	°F	
0.030 in	1760	--	°F	
0.06 in	1760	--	°F	
0.12 in	1760	--	°F	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.016 in	1760	--	°F	
0.030 in	1760	--	°F	
0.06 in	1470	--	°F	
0.12 in	1430	--	°F	
Oxvaen Index				ISO 4589-2
	33	--	%	
	33	--	%	
	140	--	Ds	ISO
	0.55	--	CIT NLP	NF X

Additional Information	Dry	Conditioned	Unit	Test Method
Railway Classification <sup>2</sup>				EN 45545-2
R22	HL3	--		
R23	HL3	--		

### Processing Information

Injection	Dry	Unit
Drying Temperature		176 °F
Drying Time		4.0 hr
Rear Temperature		500 to 554 °F
Middle Temperature		500 to 554 °F
Front Temperature		500 to 554 °F
Nozzle Temperature		500 to 554 °F
Processing (Melt) Temp		518 to 545 °F
Mold Temperature		149 to 203 °F

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Railway Application

