Starflam® 515H NT0867

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Starflam 515H NT0867 is a heat stabilized, non-red phosphorus and non-halogenated flame retardant, PA66 grade modified with 15% glass fiber for improved stiffness and strength.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight		
Additive	• Flame Retardant	• Heat Stabilizer	• Lubricant
Features	• Corrosion Resistant • Electrical Corrosion Resistant • Fast Molding Cycle • Flame Retardant • Good Colorability	• Good Dimensional Stability • Good Electrical Properties • Good Processability • Good Strength • Heat Aging Resistant	• Heat Stabilized • High Flow • Low Density • Lubricated
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF15 FR		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.32	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.80	--	%	
Flow : 73°F, 0.0787 in	0.40	--	%	
Water Absorption (24 hr, 73°F)	2.1	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.7	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	972000	653000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	14500	9570	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.2	5.5	%	ISO 527-2
Flexural Modulus (73°F)	972000	624000	psi	ISO 178
Flexural Stress (73°F)	23200	12000	psi	ISO 178
Poisson's Ratio (73°F)	0.36	--		ISO 527-2
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	2.9	2.8	ft·lb/in²	
-22°F	3.0	2.8	ft·lb/in²	
73°F	3.9	4.8	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	25	23	ft·lb/in²	
-22°F	25	23	ft·lb/in²	
73°F	26	28	ft·lb/in²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	3.0	3.0	ft·lb/in²	
-22°F	3.4	3.0	ft·lb/in²	
73°F	3.4	4.6	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**

Deflection Temperature Under Load (66 psi, Unannealed)	482	477	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	432	421	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.7E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	4.8E-5	--	in/in/°F	ISO 11359-2
RTI Elec				UL 746B
0.0079 in	284	--	°F	
0.016 in	284	--	°F	
0.030 in	284	--	°F	
0.06 in	284	--	°F	
0.12 in	284	--	°F	
RTI Imp				UL 746B
0.0079 in	230	--	°F	
0.016 in	239	--	°F	
0.030 in	266	--	°F	
0.06 in	266	--	°F	
0.12 in	284	--	°F	
RTI Str				UL 746B
0.0079 in	248	--	°F	
0.016 in	257	--	°F	
0.030 in	284	--	°F	
0.06 in	284	--	°F	
0.12 in	302	--	°F	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Electric Strength (0.0394 in)	760	690	V/mil	IEC 60243-1
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	--		
Hot-wire Ignition (HWI)				UL 746A
0.030 in	PLC 0	--		
0.06 in	PLC 0	--		
0.12 in	PLC 0	--		
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				UL 94
0.0079 in	V-0	--		
0.016 in	V-0	--		
0.030 in	V-0	--		
0.06 in	• V-0 • 5VA	--		
0.12 in	• V-0 • 5VA	--		

Processing Information

Injection	**Dry**	**Unit**
Drying Temperature	176	°F
Drying Time	4.0 to 6.0	hr
Suggested Max Moisture	< 0.20	%
Suggested Max Regrind	50	%
Rear Temperature	527 to 572	°F
Middle Temperature	527 to 572	°F
Front Temperature	527 to 572	°F
Nozzle Temperature	527 to 572	°F
Processing (Melt) Temp	527 to 572	°F
Mold Temperature	140 to 248	°F