

# Starflam® 525K NT0779

polyamide 66



Starflam 525K NT0779 is an organic heat stabilized, non-halogenated, non-red phosphorus flame retardant, PA66 grade modified with 25% glass fiber for improved stiffness and strength.

## General

Additive	• Flame Retarding Agent		
Features	• Corrosion Resistant • Good Dimensional Stability • High Flow	• Fast Molding Cycle • Good Processability • High Strength	• Flame Retardant • Heat Aging Resistant • Low Density
Automotive Specifications	• GM GMW18122P-PA-GF25-TypeB1	• Tesla TM-1006 v3 - 303120V - compliance	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

## Physical

	dry	cond.	Unit	Test Standard
Density	1.40	-	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.1	*	%	
Flow : 23°C, 2.00 mm	0.3	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1	*	%	
Equilibrium, 23°C, 50% RH	1.9	*	%	

## Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	8700	7100	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	132	97	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.1	3.2	%	ISO 527-2
Flexural Modulus (23°C)	9100	6200	MPa	ISO 178
Flexural Strength (23°C)	208	131	MPa	ISO 178

## Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	10	14	kJ/m <sup>2</sup>	
-30°C	9.5	9	kJ/m <sup>2</sup>	
-40°C	9.5	9	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	68	73	kJ/m <sup>2</sup>	
-30°C	66	63	kJ/m <sup>2</sup>	
-40°C	63	61	kJ/m <sup>2</sup>	

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Notched Izod Impact Strength				ISO 180/1A
+23°C	9.6	12	kJ/m <sup>2</sup>	
-30°C	9.1	9.2	kJ/m <sup>2</sup>	
-40°C	9.1	9.2	kJ/m <sup>2</sup>	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	239	229	°C	
0.45 MPa, Unannealed	257	254	°C	
Melting Temperature	260	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	23	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	67	*	E-6/K	
RTI Elec				UL 746
0.200 mm	140		°C	
0.400 mm	140		°C	
0.750 mm	140		°C	
1.50 mm	140		°C	
3.00 mm	140		°C	
RTI Imp				UL 746
0.200 mm	95		°C	
0.400 mm	110		°C	
0.750 mm	120		°C	
1.50mm	130		°C	
3.00 mm	130		°C	
RTI Str				UL 746
0.200 mm	115		°C	
0.400 mm	130		°C	
0.750 mm	140		°C	
1.50 mm	150		°C	
3.00 mm	150		°C	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	42	-	kV/mm	IEC 60243
Comparative Tracking Index (3.00 mm)	600		V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.400 mm	PLC 0			
0.750 mm	PLC 0			
1.50 mm	PLC 0			
3.00 mm	PLC 0			

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## Hot-wire Ignition (HWI)

UL 746

0.400 mm	PLC 2
0.750 mm	PLC 1
1.50 mm	PLC 0
3.00 mm	PLC 0

Flammability	Value	Unit	Test Standard
Flammability			UL 94
0.200 mm	V-0		
0.400 mm	V-0		
0.750 mm	V-0		
1.50 mm	V-0		
3.00 mm	V-0		
Flammability, 5V			UL 94
1.50 mm	5VA		
3.00 mm	5VA		
Glow Wire Flammability Index			IEC 60695-2-12
0.200 mm	960	°C	
0.400 mm	960	°C	
0.750 mm	960	°C	
1.50 mm	960	°C	
3.00 mm	960	°C	

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4 - 6	h
Rear Temperature	275 - 300	°C
Middle Temperature	275 - 300	°C
Front Temperature	275 - 300	°C
Nozzle temperature	275 - 300	°C
Processing (Melt) Temperature	275 - 300	°C
Mold Temperature	60 - 120	°C



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