Starflam® 525K OR0865

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Starflam 525K OR0865 is an organic heat stabilized, non-halogenated, non-red phosphorus flame retardant, PA66 grade modified with 25% glass fiber for improved stiffness and strength. Starflam 525K OR0865 is designed for color retention during thermal exposure targeting RAL 2003.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight		
Additive	• Flame Retardant		
Features	• Corrosion Resistant • Fast Molding Cycle • Flame Retardant	• Good Dimensional Stability • Good Processability • Heat Aging Resistant	• High Flow • High Strength • Low Density
Appearance	• Orange		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF25 FR		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.40	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.1	--	%	
Flow : 73°F, 0.0787 in	0.30	--	%	
Water Absorption (24 hr, 73°F)	1.2	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.9	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	1.23E+6	1.00E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	18400	13200	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.7	3.0	%	ISO 527-2
Flexural Modulus (73°F)	1.32E+6	856000	psi	ISO 178
Flexural Stress (73°F)	28000	18400	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	3.9	3.8	ft·lb/in²	
-22°F	3.9	3.6	ft·lb/in²	
73°F	4.2	5.2	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	26	25	ft·lb/in²	
-22°F	27	25	ft·lb/in²	
73°F	27	30	ft·lb/in²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	3.7	3.7	ft·lb/in²	
-22°F	3.7	3.8	ft·lb/in²	
73°F	3.9	4.8	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	493	489	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	459	442	°F	ISO 75-2/A

Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.3E-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
0.030 in	284	--	°F	
0.06 in	284	--	°F	
0.12 in	284	--	°F	
RTI Imp				UL 746B
0.030 in	248	--	°F	
0.06 in	266	--	°F	
0.12 in	266	--	°F	
RTI Str				UL 746B
0.030 in	284	--	°F	
0.06 in	302	--	°F	
0.12 in	302	--	°F	

Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Electric Strength (0.0394 in)	1100	--	V/mil	IEC 60243-1
Comparative Tracking Index (0.118 in)	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746A
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 1	--		
0.06 in	PLC 0	--		
0.12 in	PLC 0	--		

Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				UL 94
0.030 in	V-0	--		
0.06 in	• V-0 • 5VA	--		
0.12 in	• V-0 • 5VA	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.030 in	1760	--	°F	
0.06 in	1760	--	°F	
0.12 in	1760	--	°F	

Processing Information

Injection	**Dry**	**Unit**
Drying Temperature	176	°F
Drying Time	4.0 to 6.0	hr
Rear Temperature	527 to 572	°F
Middle Temperature	527 to 572	°F
Front Temperature	527 to 572	°F
Processing (Melt) Temp	527 to 572	°F
Mold Temperature	140 to 248	°F