Starflam® AFR682A1

polyamide 66

Starflam AFR682A1 is a flame retardant, mineral filled PA66 for injection molded applications.

General

Additive	• Flame Retarding Agent	• Heat Stabilizer	• Release agent
Features	• Bromine Free	• Flame Retardant	• Halogen Content, None
Uses	• Mineral Reinforced		
UL File Number	• E70062		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	dry	cond.	Unit	Test Standard
Density	1.60	-	g/cm³	ISO 1183
Water Absorption				ISO 62
Equilibrium, 23°C, 50% RH	0.6	*	%	
Water Absorption, Saturation, 23°C	5		%	ISO 62

Mechanical	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	7500	-	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	70	-	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.8	-	%	ISO 527-2
Flexural Modulus (23°C)	6800	-	MPa	ISO 178
Flexural Strength (23°C)	120	-	MPa	ISO 178

Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	3	-	kJ/m²	
-30°C	2	-	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	30	-	kJ/m²	
-30°C	30	-	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	4	-	kJ/m²	
-30°C	4	-	kJ/m²	
-40°C	3	-	kJ/m²	
Unnotched Izod Impact Strength				ISO 180/1U
+23°C	27	-	kJ/m²	
-30°C	27	-	kJ/m²	

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Thermal	dry	cond.	Unit	Test Standard
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	35	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	45	*	E-6/K	
RTI Elec				UL 746
0.750 mm	65		°C	
1.50 mm	65		°C	
RTI Imp				UL 746
0.750 mm	65		°C	
1.50mm	65		°C	
RTI Str				UL 746
0.750 mm	65		°C	
1.50 mm	65		°C	

Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	1E13	-	Ohm*m	IEC 60093
Comparative Tracking Index (3.00 mm)	600		V	IEC 60112

Flammability	dry	cond.	Unit	Test Standard
Flammability				UL 94
0.750 mm	V-2			
1.50 mm	V-2			
Glow Wire Flammability Index				IEC 60695-2-12
1.00 mm	960		°C	
Oxygen index	32	*	%	EN ISO 4589-2

Injection	Value	Unit
Drying Temperature	75 - 85	°C
Drying Time	4 - 6	h
Suggested Max Moisture	0.2	%
Rear Temperature	260 - 270	°C
Middle Temperature	270 - 280	°C
Front Temperature	270 - 285	°C
Processing (Melt) Temperature	270 - 285	°C
Mold Temperature	60 - 90	°C

North America	Europe	Asia
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