

# Starflam® AFR200Y

polyamide 66



Starflam AFR200Y is an unfilled, flame retardant, heat stabilized PA66 for injection molded applications. The material is halogen free and red phosphorus free.

## General

Additive	• Flame Retarding Agent	• Heat Stabilizer	• Release agent
Features	• Bromine Free	• Flame Retardant	• Halogen Content, None
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

## Physical

	dry	cond.	Unit	Test Standard
Density	1.18	-	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.7	*	%	
Flow : 23°C, 2.00 mm	1.8	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1.9	*	%	
Equilibrium, 23°C, 50% RH	1.1	*	%	
Water Absorption, Saturation, 23°C	7.5		%	ISO 62

## Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	3500	1900	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	80	49	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	77	49	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	4	16	%	ISO 527-2
Tensile Strain (Break, 23°C)	7.8	16	%	ISO 527-2
Flexural Modulus (23°C)	3700	1500	MPa	ISO 178
Flexural Strength (23°C)	102	37	MPa	ISO 178

## Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	4.4	6.5	kJ/m <sup>2</sup>	
-30°C	4.5	4.3	kJ/m <sup>2</sup>	
-40°C	4.5	4	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	120	185	kJ/m <sup>2</sup>	
-30°C	120	150	kJ/m <sup>2</sup>	
-40°C	106	118	kJ/m <sup>2</sup>	

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Notched Izod Impact Strength				ISO 180/1A
+23°C	4.8	6.1	kJ/m <sup>2</sup>	
-30°C	4.9	5.4	kJ/m <sup>2</sup>	
-40°C	5	5.4	kJ/m <sup>2</sup>	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	81	-	°C	
0.45 MPa, Unannealed	228	-	°C	
Melting Temperature	260	*	°C	ISO 11357-3
RTI Elec				UL 746
0.750 mm	130		°C	
1.50 mm	130		°C	
3.00 mm	130		°C	
RTI Imp				UL 746
0.750 mm	90		°C	
1.50mm	90		°C	
3.00 mm	90		°C	
RTI Str				UL 746
0.750 mm	115		°C	
1.50 mm	115		°C	
3.00 mm	115		°C	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	31	28	kV/mm	IEC 60243
High Amp Arc Ignition (HAI)				UL 746
1.50 mm	PLC 3			

Flammability	dry	cond.	Unit	Test Standard
Flammability				UL 94
0.400 mm	V-0			
0.750 mm	V-0			
1.50 mm	V-0			
3.00 mm	V-0			
Oxygen index	31	*	%	EN ISO 4589-2

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Injection	Value	Unit
Drying Temperature	75 - 85	°C
Drying Time	4	h
Suggested Max Moisture	0.2	%
Rear Temperature	260 - 270	°C
Middle Temperature	265 - 280	°C
Front Temperature	270 - 280	°C
Processing (Melt) Temperature	265 - 280	°C
Mold Temperature	60 - 90	°C



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