

Starflam® AFR470X2

polyamide 66



Starflam AFR470X2 is a 35% glass filled, red phosphorous flame retardant PA66 for injection molded applications.

General

Regional Availability	• North America	• Europe	
Additive	• Flame Retarding Agent	• Heat Stabilizer	• Release agent
Features	• Flame Retardant	• Halogen Content, None	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	dry	cond.	Unit	Test Standard
Density	1.44	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.9	*	%	
Flow : 23°C, 2.00 mm	0.3	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1.6	*	%	
Equilibrium, 23°C, 50% RH	1.4	*	%	
Water Absorption, Saturation, 23°C	4.5		%	ISO 62

Mechanical	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	11000	7800	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	155	105	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.4	3.9	%	ISO 527-2
Flexural Modulus (23°C)	10600	7500	MPa	ISO 178
Flexural Strength (23°C)	218	155	MPa	ISO 178
Poisson's Ratio (23°C)	0.34		-	ISO 527-2

Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	12	15	kJ/m ²	
-30°C	10	9.3	kJ/m ²	
-40°C	10	8.9	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	71	75	kJ/m ²	
-30°C	59	58	kJ/m ²	
-40°C	58	55	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A

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+23°C	11	14	kJ/m²
-30°C	7.8	9.2	kJ/m²
-40°C	7.7	9	kJ/m²

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	237	182	°C	
0.45 MPa, Unannealed	256	255	°C	
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	19	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	100	*	E-6/K	
RTI Elec				UL 746
0.750 mm	100		°C	
3.00 mm	100		°C	
RTI Imp				UL 746
0.750 mm	95		°C	
3.00 mm	100		°C	
RTI Str				UL 746
0.750 mm	100		°C	
3.00 mm	105		°C	

Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	1E13	-	Ohm*m	IEC 60093
Dielectric Strength (1.00 mm)	27	25	kV/mm	IEC 60243

Flammability	Value	Test Standard
Flammability		UL 94
0.750 mm	V-0	
3.00 mm	V-0	

Injection	Value	Unit
Drying Temperature	75 - 85	°C
Drying Time	4	h
Suggested Max Moisture	0.1	%
Rear Temperature	275 - 285	°C
Middle Temperature	275 - 285	°C
Front Temperature	275 - 285	°C
Processing (Melt) Temperature	275 - 285	°C