Starflam AFR470X2

Polyamide 66

Eurostar Engineering Plastics

Message:

Starflam AFR470X2 is a Red Phosphorous Flame Retardant, Glass Fiber Reinforced Polyamide 66 Injection Molding Resin

General Information			
UL YellowCard	E340012-100747898		
Filler / Reinforcement	Glass Fiber		
Additive	Flame Retardant 3		
Features	Flame Retardant		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.43	g/cm³	ISO 1183
Molding Shrinkage - Flow [1]	0.20 to 0.30	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	4.5	%	
Equilibrium, 23°C, 50% RH	1.1	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (L-Scale)	108		ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	11000	MPa	ISO 527-2/1
Tensile Stress (Break)	175	MPa	ISO 527-2/5
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Flexural Modulus [2]	10300	MPa	ISO 178
Flexural Stress	260	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [3]			ISO 179/1eA
-30°C	9.0	kJ/m²	
23°C	11	kJ/m²	
Charpy Unnotched Impact Strength [4]			ISO 179/1eU
-30°C	70	kJ/m²	
23°C	70	kJ/m²	
Notched Izod Impact Strength [5]			ISO 180/1A
-40°C	8.0	kJ/m²	
-30°C	9.0	kJ/m²	
-20°C	10	kJ/m²	
23°C	12	kJ/m²	
Thermal	**Nominal Value**	**Unit**	**Test Method**

Heat Deflection Temperature [6]			
0.45 MPa, Unannealed, 100 mm Span	255	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	248	°C	ISO 75-2/Ae
Vicat Softening Temperature	245	°C	ISO 306/B50, ISO 306/B120
Ball Pressure Test [7] (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 60°C	2.1E-5	cm/cm/°C	
Transverse : 23 to 60°C	1.5E-5	cm/cm/°C	
RTI Elec	100	°C	UL 746
RTI Imp	95.0	°C	UL 746
RTI Str	100	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity [8]	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength (3.20 mm, in Oil)	16	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	4.50		
60 Hz	4.50		
1 MHz	3.20		
Dissipation Factor			IEC 60250
50 Hz	6.1E-3		
60 Hz	6.1E-3		
1 MHz	0.014		
Comparative Tracking Index	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.750 mm)	V-0		UL 94
Glow Wire Flammability Index (2.00 mm)	960	°C	IEC 60695-2-12
Oxygen Index	28	%	ISO 4589-2
Injection	**Nominal Value**	**Unit**	
Drying Temperature	75.0 to 85.0	°C	
Drying Time	4.0 to 6.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	275 to 285	°C	
Middle Temperature	275 to 285	°C	
Front Temperature	275 to 285	°C	
Processing (Melt) Temp	275 to 285	°C	
Mold Temperature	70.0 to 90.0	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	80*10*4 sp=62mm		
4.	80*10*4 sp=62mm		

5.	80*10*4
6.	120*10*4
7.	125°C ±2°C
8.	ROA

Recommended distributors for this material

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