

**DESCRIPTION** Starflam AFR200Y is an Unfilled, Halogen Free and Red Phosphorous Free, Flame Retardant, Polyamide 66 Injection Molding Resin

PROPERTY (1)	UNIT	STANDARD	TYPICAL VALUE (1) Dry As Moulded
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### PHYSICAL

Density	g/cm <sup>3</sup>	ISO 1183	1.17
Moisture Absorption (23°C / 50% RH)	%	ISO 62	1.1
Mold Shrinkage on Tensile Bar, flow	%	E2P Method	1.1 - 1.5
Water Absorption, (23°C/sat)	%	ISO 62	7.5

### MECHANICAL

Flexural Modulus, 2 mm/min	MPa	ISO 178	3300
Flexural Stress, yield, 2 mm/min	MPa	ISO 178	120
Tensile Modulus, 1 mm/min	MPa	ISO 527	3400
Tensile Strain, break, 5 mm/min	%	ISO 527	9
Tensile Strain, yield, 5 mm/min	%	ISO 527	4.8
Tensile Stress, break, 5 mm/min	MPa	ISO 527	78
Tensile Stress, yield, 5 mm/min	MPa	ISO 527	80

### IMPACT

Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	kJ/m <sup>2</sup>	ISO 179/1eU	>100
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	kJ/m <sup>2</sup>	ISO 179/1eA	3
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	kJ/m <sup>2</sup>	ISO 179/1eU	70
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	kJ/m <sup>2</sup>	ISO 179/1eA	3
Izod Impact, notched 80*10*4 +23°C	kJ/m <sup>2</sup>	ISO 180/1A	4
Izod Impact, notched 80*10*4 -20°C	kJ/m <sup>2</sup>	ISO 180/1A	4

Source RJF, last update 01-07-2010

(1) Typical values for natural color unless specified otherwise. Do not constitute a specification. Significant variations are possible for colors

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### IMPACT

Izod Impact, notched 80*10*4 -30°C	kJ/m <sup>2</sup>	ISO 180/1A	3
Izod Impact, notched 80*10*4 -40°C	kJ/m <sup>2</sup>	ISO 180/1A	3

### THERMAL

Ball Pressure Test, 125°C +/- 2°C		IEC 60695-10-2	PASSES
CTE, 23°C to 60°C, flow	1/°C	ISO 11359-2	8.50E-05
CTE, 23°C to 60°C, xflow	1/°C	ISO 11359-2	8.50E-05
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	°C	ISO 75/Ae	90
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	°C	ISO 75/Be	210
Relative Temp Index, Elec	°C	UL 746B	130
Relative Temp Index, Mech w/impact	°C	UL 746B	90
Relative Temp Index, Mech w/o impact	°C	UL 746B	115

### FLAME CHARACTERISTICS

Glow Wire Flammability Index 960°C, passes at	mm	IEC 60695-2-12	1
Oxygen Index (LOI)	%	ISO 4589	29
UL Recognized, 94V-0 Flame Class Rating	mm	UL 94	0.4

### ELECTRICAL

Comparative Tracking Index	V	IEC 60112	600
Dielectric Strength, in oil, 3.2 mm	kV/mm	IEC 60243-1	15
Volume Resistivity	Ohm-cm	IEC 60093	>1.E+15

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PARAMETER	SETTING	UNIT
Drying Temperature	75 - 85	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.2	%
Mold Temperature	60 - 90	°C
Rear - Zone 1 Temperature	260 - 270	°C
Middle - Zone 2 Temperature	265 - 280	°C
Front - Zone 3 Temperature	270 - 280	°C
Melt Temperature	265 - 280	°C

**PROCESSING PARAMETERS:** see above typical molding conditions.

**DRYING:** is not essential when material is delivered in sealed bags with moisture content below 0.2%.

**BARRELS, SCREWS, MOULDS:** use wear resisting steel or alloy such as bimetallic cylinders, nitrided screws.

**USE OF REGRIND:** the properties of the component should be checked in order to ascertain the maximum acceptable level of regrind.

**SAFETY:** please refer to Material Safety Datasheet

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