

**DESCRIPTION** Starflam RF0077E is a Halogen Free and Red Phosphorous Free Flame Retardant, Glass Fiber Reinforced, Polyamide 66 Injection Molding Resin (also known as RF1007Z270)

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

Density	g/cm <sup>3</sup>	ISO 1183	1.47
Mold Shrinkage, flow (4mm thickness)	%	E2P Method	0.1 - 0.3
Mold Shrinkage, xflow	%	E2P Method	0.7- 1.1

### MECHANICAL

Flexural Modulus, 2 mm/min	MPa	ISO 178	10400
Flexural Stress, break, 2 mm/min	MPa	ISO 178	216
Tensile Modulus, 1 mm/min	MPa	ISO 527	11500
Tensile Strain, break, 5 mm/min	%	ISO 527	2.1
Tensile Stress, break, 5 mm/min	MPa	ISO 527	155

### IMPACT

Izod Impact, notched 80*10*4 +23°C	kJ/m <sup>2</sup>	ISO 180/1A	9
Izod Impact, unnotched 80*10*4 +23°C	kJ/m <sup>2</sup>	ISO 180/1U	55

### THERMAL

Ball Pressure Test, approximate maximum	°C	IEC 60695-10-2	240
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	°C	ISO 75/Af	245
Relative Temp Index, Elec	°C	UL 746B	140
Relative Temp Index, Mech w/impact	°C	UL 746B	110
Relative Temp Index, Mech w/o impact	°C	UL 746B	140

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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EUROSTAR Engineering Plastics, ZI - Rue de la Ferme Saint Ladre, BP2, F/95471 Fosses Cedex FRANCE,

Tel: + 33 1 34 47 47 00, Fax: + 33 1 34 47 47 18 - [www.eurostar-ep.com](http://www.eurostar-ep.com)

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### FLAME CHARACTERISTICS

Glow Wire Flammability Index 960°C, passes at	mm	IEC 60695-2-12	0.8
Glow Wire Ignitability Temperature, 1.0 mm	°C	IEC 60695-2-13	775
Glow Wire Ignitability Temperature, 1.5 mm	°C	IEC 60695-2-13	775
Glow Wire Ignitability Temperature, 3.0 mm	°C	IEC 60695-2-13	825
UL Recognized, 94V-0 Flame Class Rating	mm	UL 94	0.8

### ELECTRICAL

Comparative Tracking Index	V	IEC 60112	600
High Ampere Arc Ign, surface {PLC}	PLC Code	UL 746A	0
Hot Wire Ignition {PLC}	PLC Code	UL 746A	0

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PARAMETER	SETTING	UNIT
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.2	%
Mold Temperature	60 - 100	°C
Rear - Zone 1 Temperature	265 - 275	°C
Middle - Zone 2 Temperature	265 - 275	°C
Front - Zone 3 Temperature	270 - 280	°C
Melt Temperature	270 - 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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