

## 19FR-0Z011

**Description:**

UL Apporved Flame-retardant High Impact Polystyrene in Natural color

**Application:**

Flame Retardant Electrical &amp; Electronic appliances, TV back cover, Circuit Boards, Relay Boxes etc.

Properties	Test Method	Test Condition	Unit	Typical Value
<b>Physical</b>				
Specific Gravity	ASTM D 792	-	-	1.16
Shrinkage	ASTM D 955	-	%	0.4-0.8
<b>Rheological</b>				
Melt Flow Index	ASTM D 1238 (G)	200 °C / 5 kg	gms / 10min	6.0
<b>Thermal &amp; Optical</b>				
Vicat Softening point	ASTM D 1525	120 °C / Hr, 1 kg	°C	96
Heat Deflection temperature	ASTM D 648	1.82 Mpa	°C	78
Flammability	UL 94	3.2 mm	Rating	V <sub>0</sub>
<b>Mechanical</b>				
Tensile Strength @ Yield, 3.2 mm	ASTM D 638	50 mm / min	Kg / cm <sup>2</sup>	220
Tensile Elongation @ Break, 3.2 mm	ASTM D 638	50 mm / min	%	40
Flexural Strength, 3.2 mm	ASTM D 790	1.3 mm / min	Kg / cm <sup>2</sup>	400
Flexural Modulus, 3.2 mm	ASTM D 790	1.3 mm / min	Kg / cm <sup>2</sup>	24000
Izod Impact Strength (Notched), 6.4 mm	ASTM D 256	-	Kg-cm / cm	7.0
Rockwell Hardness	ASTM D 785	-	R-Scale	93
<b>Processing Conditions</b>				
Melt Temperature	-	-	°C	180 - 220
Mold Temperature	-	-	°C	45 - 60
Pre-drying temperature	-	-	-	Not Required

**Note:**

- The above Typical values in this Product data sheet are intended to serve for material selection purpose only
- Values given should not be interpreted as specification and not be used for part or tool design.
- All properties, except melt flow rate are measured on injection molded specimens and after 48 hours storage at 23°C, 50% relative humidity.
- The design and Characteristics of the product manufactured out of LGPI material are beyond our control & expertise, therefore, LGPI shall not own the responsibility for any consequential damage incurred by the Purchaser.

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**Processing guidelines:**

- 19FR-0Z011 can be Injection molded under different conditions depending upon the size of the machine, mold size & shape of the components.
- Pre-drying normally not required.

**Recommended temperatures:**

- Melt Temperature profile: 200-240 °C
- Mould Temperature: 45-60 °C (Optimization of condition gives the best results)

Molding at a very low or very high temperature conditions than required, may cause degradation.

**Packing:**

Supplied as cylindrical shaped granules in 25 kg PP laminated woven sack bags.

**Storage & Handling precautions:**

LGPI recommends the storage of Polystyrene in dust free environment, dry & cool place in a shade an avoid direct exposure to sunlight

**Product Safety:**

Processing may release fumes, which may be irritating. Sufficient ventilation should be provided in the processing area. If it causes eye discomfort, use a full-face respirator.

Handling & fabrication of plastic resin may result in the generation of dust. Dust resulting from sawing, filing & sanding of plastic parts in post molding operations may cause irritation to eyes. In dusty atmospheres, use an approved dust respirator.