



# Kkalpana Industries (India) Limited

An ISO 9001:2015 company  
**TECHNICAL DATA**

## Polyolefin Copolymer Halogen free Cable Insulation Compound: KI-LSHF-3401- IS

### DESCRIPTION :

KI-LSHF-3401-IS is a thermoplastic, halogen free, fire retardant, low smoke compound designed for cable insulation application at high speed extrusion.

### SPECIFICATION:

- EN 50362-7: 2005 Type TI 6 and TI 7
- IEC 332-1/IEC-332-2

### TYPICAL PROPERTIES :

Property	Test Method	Unit	Typical Value
Density	ASTM-D-792	gm / cm <sup>3</sup>	1.46
Melt Flow Index, 150 <sup>0</sup> C-21.6 kgs	ASTM D-1238	gm/ 10 min	8
Hardness	ASTM-D-2240	Shore D	50
Tensile Strength at break	ASTM D-638	MPa	12
Elongation at break	ASTM D-638	%	200
Variation in Tensile strength*	IEC 60811	%	±20
Variation in Elongation at break*	IEC 60811	%	±20
Limiting Oxygen Index	ASTM-D-2863	%	34
Temperature Index	ASTM-D-2863	°C	300
Smoke Density Rating	ASTM-D-2843	%	8
Halogen acid gas emission	IEC 60754-1	%	Nil
Corrosivity of gases	IEC 60754-2		
PH		-	5.5
Conductivity		µS/cm	16
Toxicity Index	NES 713	-	2.5
Volume Resistivity	ASTM D 257	Ohm-cm	3 x 10 <sup>14</sup>

\* After Heat ageing at 100°C for 168 hours.

\* Data is for information purpose only and should not be used for specification work.

**PRE DRYING:** Dehumidified hopper drying at 60-70°C for 2 – 3 hours prior to extrusion may be used to remove moisture.

**RECOMMENDED PROCESSING CONDITIONS:**

KI-LSHF-3401-IS can be processed using an 18-25 L/D extruder with proper control of the barrel temperature. A low compression screw (halogen free type) is recommended. PVC / PE screw are normally not suitable.

Name of the Zone	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7
Temperature Range (°C)	130-140	140-145	140-145	140-145	145-150	150-160	160-165

These conditions are for guideline only and may vary depending on the extruder and crosshead type and size and tools design.

The use of breaker plate is advisable, in particular low compression screws.

A wide range of PE based colour master batches are applicable; it is suggested an addition of 1- 2% (approx.) by weight.

**STORAGE :** Shelf life of the product is 6 months from the date of production subject to following condition:

- Closed and unopened bags.
- Ambient temperature generally not exceeding 30°C
- Avoid direct exposure to sunlight and weathering.

The compound can be adversely affected by long storage time. KIIL suggest its use within 6 months from the date of manufacturing.

**PACKAGE :**

25 kg packed in woven sack bags containing inner liner.

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*The information given in the document is believed to be reliable and is given in the good faith but without warranty. The user should test the product to ascertain the suitability for the intended use. Product specification or the whole document is subject to change without any prior notice.*