



Kkalpana Industries (India) Limited

An ISO 9001:2015 company
TECHNICAL DATA

Polyolefin Copolymer Halogen free Cable Insulation and sheathing Compound: KI-LSHF-3403

DESCRIPTION :

KI-LSHF-3403 is a thermoplastic, halogen free, Highly fire retardant, low smoke compound designed for cable insulation and sheathing application with excellent processing and mechanical properties.

SPECIFICATION:

- EN 50363-7: 2005 Type TI 6 and TI 7
- Cenelec HD 624.6S1
- IEC 332-1/IEC-332-2

TYPICAL PROPERTIES :

Property	Test Method	Unit	Typical Value
Density	ASTM-D-792	gm / cm ³	1.49
Melt Flow Index, 150 ⁰ C-21.6 kgs	ASTM D-1238	gm/ 10 min	8
Hardness	ASTM-D-2240	Shore D	53
Tensile Strength at break	ASTM D-638	MPa	14
Elongation at break	ASTM D-638	%	180
Variation in Tensile strength*	IEC 60811-401	%	±20
Variation in Elongation at break*	IEC 60811-401	%	±20
Limiting Oxygen Index	ASTM-D-2863	%	40
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			
PH	IEC 60754-2	-	5.5
Conductivity		µS/cm	16
Toxicity Index	NES 713	-	2.6
Volume Resistivity	ASTM D 257	Ohm-cm	1.25 x 10 ¹⁵

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

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

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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	140-150	150-160	160-170	170-180

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 :

The compound must be stored in the following conditions.

- 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.

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.