



# Ddev Plastiks Industries Limited

An ISO 9001:2015 company

## TECHNICAL DATA

**Crosslinkable Halogen free Cable Insulation and Sheathing Compound : KI-LSHF-3302 XL & KI LSHF 04 FX**

### DESCRIPTION :

KI-LSHF-3302 XL & KI-LSHF 04 FX is a Zero halogen, Low smoke, Flame retardant, Silane Grafted, Moisture curable by addition of a catalyst masterbatch crosslinkable compound for insulation and sheathing applications. It contains metal deactivator and suitable additive system for direct insulation on copper conductor.

### SPECIFICATION:

The properties of this compound meet the requirements of VDE 0266 type HX11 & HXM1, VDE 0207 part 23 type HJ1, IEC 60092-360 type HF 90, EN 50363-5 type EI5, IEC 62930-EN50618 solar insulation and sheath.

### TYPICAL PROPERTIES :

Property	Test Method	Unit	Typical Value
Density	ASTM-D-792	gm / cm <sup>3</sup>	1.45
Melt Flow Index, 150 <sup>0</sup> C-21.6 kgs	ASTM D-1238	gm/ 10 min	6
Hardness	ASTM-D-2240	Shore D	47
Tensile Strength at break	ASTM D-638	MPa	12.5
Elongation at break	ASTM D-638	%	250
Variation in Tensile strength*	IEC 60811	%	±25
Variation in Elongation at break*	IEC 60811	%	±25
Hot Elongation, at 250 <sup>0</sup> C for 15 minutes at 02. N/mm <sup>2</sup> Load.	IEC 60811-1-2	%	70
Limiting Oxygen Index	ASTM-D-2863	%	33
Temperature Index	ASTM-D-2863	°C	280
Smoke Density Rating	ASTM-D-2843	%	8
Halogen acid gas emission	IEC 60754-1	%	< 0.1
Corrosivity of gases	IEC 60754-2		
PH		-	>4.5
Conductivity		µS/cm	<10
Toxicity Index	NES 713	-	2.6
Volume Resistivity	ASTM D 257	Ohm-cm	1.25 x 10 <sup>14</sup>

\* After Heat ageing at 135°C for 168 hours.

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

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## RECOMMENDED PROCESSING CONDITIONS:

It is recommended to dry the catalyst master batch KI LSHF 04 FX at 65°C in an air oven in 4-6 cm layers for 4-6 hours. The grafted Polymer should never be pre heated.

The Grafted KI-LSHF-3302 XL compound and catalyst master batch KI LSHF 04FX should be manually mixed at 95:5 Parts at room temperature, just before consumption. Mixing in large quantities should be avoided, since such leftover premix cannot be stored and consumed at a later date.

During extrusion, following temperature profile is suggested as a general guideline.

Position	Temperature (°C)
Barrel Zones	130 – 165 °C
Head	165°C
Die	170 - 180 °C

Screw: Recommended ZHFR screw with low compression ratio 1.2-1.5:1

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- 1.5% (approx.) by weight.

## PACKAGING :

Aluminum foil Multilayer bag of 25 Kgs.

20” FCL will take palletized 11 MT & 40” will take 24.75 MT.

## STORAGE:

The shelf life of the product is 90 days (In case of Export packaging the shelf life is guaranteed for 180 days instead of 90 days) from the date of production, subject to following conditions:

- Storage temperature not generally exceeding 25 °C
- Away from direct sunlight and weathering.
- Closed and unbroken bags.

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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.*

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