



# Ddev Plastiks Industries Limited

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

**Crosslinkable Halogen free PV Compound:**

**KI-LSHF-3303 XL & KI XL 06 HF**

## DESCRIPTION :

KI-LSHF-3303 XL is a Zero halogen, Low smoke, Flame retardant, Silane Grafted, Moisture curable by addition of a catalyst masterbatch (KI XL 06 HF) crosslinkable compound for Photovoltaic Insulation and Sheathing applications. It has good electrical properties and high thermal stress resistance.

## SPECIFICATION:

BS EN 50618 : 2014, TÜV 2 PfG 1169/08.2007, EN 50363-5 EI5, IEC 60092/351 HF 90, VDE 0207 /23 HJ1, IS 17048 HFI XL 90.

## TYPICAL PROPERTIES :

Property	Test Method	Unit	Range Value
Density	ASTM-D-792	gm / cm <sup>3</sup>	1.20
Melt Flow Index, 150 <sup>0</sup> C-21.6 kgs	ASTM D-1238	gm/ 10 min	6
Hardness	ASTM-D-2240	Shore D	42
Tensile Strength at break	ASTM D-638	MPa	15
Elongation at break	ASTM D-638	%	400
Variation in Tensile strength Ageing at 150 <sup>0</sup> C for 7 days	IEC 60811	%	±25
Variation in Elongation at break Ageing at 150 <sup>0</sup> C for 7 days	IEC 60811	%	±25
Retention of Tensile Properties after UV Exposure for 720 Hours	ASTM G 154		
Tensile Strength		%	+20
Elongation		%	-20
Hot Elongation, at 250 <sup>0</sup> C for 15 minutes at 2.0 N/mm <sup>2</sup> Load.	IEC 60811-1-2	%	80
Limiting Oxygen Index	ASTM-D-2863	%	30
Smoke Density Rating	ASTM-D-2843	%	8
Halogen acid gas emission	IEC 60754-1	%	Nil
Corrosivity of gases	IEC 60754-2		
PH		-	4.8
Conductivity		µS/mm	1.6
Volume Resistivity	ASTM D 257	Ohm-cm	1.25 x 10 <sup>14</sup>

\* 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 XL 06 HF 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-3303 XL compound and catalyst master batch KI XL 06 HF 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.*