



# SHAKUN POLYMERS LIMITED



## SPL-LL-SiXL

### LINEAR LOW DENSITY CROSSLINKABLE POLYETHYLENE

#### Description

**SPL-LL-SiXL** is a LINEAR LOW DENSITY CROSSLINKABLE POLYETHYLENE COMPOUND where cross linking is achieved by exposure to moisture.

**SPL-LL-SiXL** is a specially formulated one pack compound which contains Silane, Catalyst, Antioxidants and Copper inhibitor.

#### Specification

Cables manufactured with **SPL-LL-SiXL** according to standard technology meet IEC 60502, IS : 7098 Part I, Part II applications.

#### Properties

Properties	Test Method	Unit	Typical Value
Tensile Strength	ASTM D 638	MPa	20
Elongation	ASTM D 638	%	500
Variation in Tensile Properties after Heat Ageing for 7 days at 135°C			
Tensile Strength	ASTM D 638	%	4
Elongation	ASTM D 638	%	-10
Hot Set Elongation at 200°C for 15 Min at 0.2 N/mm <sup>2</sup> load	IEC 60811-2-1	%	70
Elongation after unloading	IEC 60811-2-1	%	± 10
Volume Resistivity	ASTM D 257	ohm-cm	10 <sup>16</sup>
Dissipation Factor	ASTM D 150	--	0.0004
Dielectric Constant	ASTM D 150		2.25

\*All Data on 1 mm Tape extruded at Temperatures between 140-200°C on Zones and 210-230°C on Crosshead and Die and then Cured in Water at temperature of 85°C

\* Data should not be used for specification work.

## ▣ Process Techniques

**SPL-LL-SiXL** can be processed on conventional PE (or even PVC) Extrusion lines, thus obviating the need of an expensive continuous vulcanizing (CV) extrusion line. The cross linking step can be carried out by immersion in Hot Water (Sauna) or exposure to low-pressure steam at 80°C – 85°C. In each case, curing time is to be optimized as a function of thickness of the insulation normally it is 3-4 Hrs. approx. per mm

**DRYING OF COMPOUND IS NOT REQUIRED.** Extrusion Temperatures in the range of 140 – 200°C on barrel and 210 – 230°C on Die and crosshead is recommended.

## ▣ Packaging

**SPL-LL-SiXL** is available in the form of free flowing pellets and supplied in bags of moisture resistant material with a net content of 25 Kgs. Material also available in Jumbo Boxes with a net content of 600 Kgs.

The shelf life of the product is 180 days from the date of manufacture subject to the following conditions.

- Storage temperature not generally exceeding 35°C
- Away from Direct Sunlight
- Closed and unbroken bags.
- Use of compound within 2 hours after bags are opened.

This information is to the best of our knowledge accurate but all recommendations or suggestions are made without guarantee since the conditions of use are beyond our control. The typical values given do not constitute specification for the product but represent typical analytical values.

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