

# XL11100

## Silane LV SiXLPE Natural Insulation Compound



### Technical Data Sheet

## General Information

**Description:** Cross-linkable polyethylene compound designed for the insulation of power cables to be mixed with a catalyst master batch (XL91300) at a ratio of 95:5 during extrusion.

**Features:** Outstanding extrusion properties at high output rates, UV stabilized

**Uses:** Insulation compound for low voltage cables

**Classifications:** BS7655-1.3: GP 8, IEC 60092-351: XLPE, IEC 60502-1: XLPE, BS EN 50290-2-29: XLPE VDE 0207-22: VPE

**Form:** Ø 3 mm x 2 – 3 mm pellets

**Color:** Natural Transparent

## Technical Information

### Physical Properties

	Nominal Value	Test Method
Density 2 (g/cm <sup>3</sup> ) @25°C	0.920 ± 0.002	ASTM D 792
Melt flow rate 2 @190°C, 2.16kg (gm/10min)	0.8 ± 0.50	ASTM D 1238
Durometer Hardness <sup>3</sup> , Shore A	91 ± 2	ASTM D 2240

### Mechanical Properties

Yield Tensile Strength <sup>3</sup> (N/mm <sup>2</sup> )	23 ± 3	IEC 60811-501
Elongation at Break <sup>3</sup> (%)	600 ± 50	IEC 60811-501
Cold bend 3 @ -70°C	No cracks	IEC 60811-504
Shrinkage (%)	< 3	IEC 60811-502

### Electrical Properties

Volume resistivity @ 20°C (Ω.cm)	>1 x 10 <sup>16</sup>	IEC 60502
Insulation Constant Ki @ 90°C (Ω.cm)	>1.3 x 10 <sup>14</sup>	IEC 60502
Dielectric strength @ 20°C (kV/mm)	>21	IEC 60543
Power factor at 50Hz @ 23°C	3 x 10 <sup>-4</sup>	IEC 60250
Permittivity at 50Hz @ 23°C	<2.0	IEC 60250

### Aging @ 135°C for 240 hrs<sup>3</sup>

Change in Tensile Strength (% of unaged)	<10	IEC 60811-401
Change in Ultimate Elongation (% of unaged)	<15	IEC 60811-401

### Hot Set test @ 200°C for 15 min<sup>3</sup>

Elongation under 20N/cm <sup>2</sup> (%)	<100	IEC 60811-507
Permanent elongation after cooling	<10	IEC 60811-507

### Water absorption @ 85°C for 336 hrs<sup>3</sup>

Variation in mass (mg/cm <sup>2</sup> )	<1	IEC 60811-402
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<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Tests performed on grafted compound

<sup>3</sup> Tests performed on cross-linked samples of 95% XL11100 and 5% Catalyst MB XI91300