XL13100
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: Fast cure, 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[3]) @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[3], Shore A	91 ± 2	ASTM D 2240
Mechanical Properties		
Yield Tensile Strength[3] (N/mm[2])	23 ± 3	IEC 60811-501
Elongation at Break[3](%)	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^{16}	IEC 60502
Insulation Constant Ki @ 90°C (Ω.cm)	>1.3 x 10^{14}	IEC 60502
Dielectric strength @ 20°C (kV/mm)	>21	IEC 60543
Power factor at 50Hz @ 23°C	3 x 10^{-4}	IEC 60250
Permittivity at 50Hz @ 23°C	<2.0	IEC 60250
Aging @ 135°C for 240 hrs[3]		
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[3]		
Elongation under 20N/cm2 (%)	<100	IEC 60811-507
Permanent elongation after cooling	<10	IEC 60811-507
Water absorption @ 85°C for 336 hrs[3]		
Variation in mass (mg/cm[2])	<1	IEC 60811-402

[1] Typical properties: these are not to be construed as specifications.
[2] Tests performed on grafted compound
[3] Tests performed on cross-linked samples of 95% XL11100 and 5% Catalyst MB Xl91300