



## ZC-3231 Silane XLPE Compound of Monosil Method for Wire and Cable up to 10kV

This material is a kind of warm water crosslinkable polyethylene insulation compound. It is processed by using high quality polyethylene resin, silane coupling agent, initiator, antioxidant agent, catalyst, weather resistance, master-batch and other additives. It has an excellent extrusion performance, stable physical and chemical index; Quick extruding speed and smooth surface.

**Application:** 10kV and below power cable insulation; Maximum working temperature is 90°C.

### Property

Item		Unit	Test method	Typical value
Density@23°C		g/cm <sup>3</sup>	ASTM D792	0.92±0.01
Tensile strength		MPa	IEC60811-1-1	22
Elongation at break		%		550
Impact embrittlement performance@-76°C	Failure number	Piece	ASTM D746	0/30
After aging @135°C, 168h	Tensile strength variation	%	IEC 60811-1-2	+13
	Breaking elongation variation	%		-7
Hot prolongation@200°C, 0.2MPa, 15min	Elongation under the load	%	IEC 60811-2-1	80
	Permanent deformation	%		0
Dielectric dissipation factor@20°C, 50HZ		—	IEC 60250	5×10 <sup>-4</sup>
Relative dielectric constant@20°C, 50HZ		—		2.20
Dielectric strength@20°C		MV/m	IEC 60243-1	34
Volume resistivity@20°C		Ω·m	IEC 60093	2.4×10 <sup>14</sup>
Gel content		%	ASTM D2765	65

### Processing

Recommend for polyethylene specific extruder. Draw ratio is from 18:1 to 25:1 and other equipment need to be adjusted according to the circumstance.

Zone	Feeding Section	Compression Section	Homogenization Section	Model Section
Temperature Range °C	160-180	180-200	200-220	220-230

- Above temperature is only for reference.

### Reference cross-linking conditions

For general cable insulation layer (1 mm in thickness) can be cross-linked after bathed in 90°C above hot water for 4 hours. If the thickness of insulation is larger, it should be appropriate to extend the bath time. Extended by 1mm/4h or extend the time according to the specific heat for extended data.

### Storage

Keep at room temperature; Storage environment should be clean, dry and ventilated; Best use within six months from the date of production; Please use up in 16 hours after bag is opened.

### Product packing

25kg in moisture resistant aluminum laminated bags with composite paper bags outside; Palletized bottom.