



## ZC-3232 Silane XLPE Compound of Monosil Method for Wire and Cable up to 3kV

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:** 3kV 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.