



ZC-3111 Peroxide XLPE Insulation Compound for MV Cable up to 35kV

This material is a kind of crosslinkable polyethylene insulation compound. It is made of high quality PE resin, dicumyl peroxide agent and antioxidant agent by plasticizing granulation. Production process uses the closed system; Loss-in-weight Feeder which guarantees stable precision of components. It has stable physical and chemical index and good processing property.

Application: 35kV crosslinkable cable insulation; Maximum working temperature is 90°C.

Property

Item		Unit	Test method	Typical value
Density@23°C		g/cm ³	ASTM D792	0.92±0.01
Tensile strength		MPa	IEC 60811-1-1	22.5
Elongation at break		%		540
Impact embrittlement performance@-76°C	Failure number	Piece	ASTM D746	0/30
After aging @135°C, 168h	Tensile strength variation	%	IEC 60811-1-2	+4
	Breaking elongation variation	%		-4
Hot prolongation@200°C, 0.2MPa, 15min	Elongation under the load	%	IEC 60811-2-1	60
	Permanent deformation	%		0
Dielectric dissipation factor@20°C, 50HZ		—	IEC 60250	1×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ		—		2.25
Dielectric strength@20°C		MV/m	IEC 60243-1	40
Volume resistivity@20°C		Ω·m	IEC 60093	1×10 ¹⁵
Gel content		%	ASTM D2765	86

Impurity content

Impurities Particle Size	Number of particles C1	Number of particles C2
0.12~0.25	6	10
0.26~0.50	1	2
0.51~1.00	0	0
>1.00	0	0

Particles number<C1 qualified. BetweenC1 and C2, re-inspection. Particles number> C2, unqualified.

Processing

Recommend to use conventional extruder (three layers co-extrusion, draw ratio is from 20:1 to 30:1) and other equipments need to be adjusted according to the circumstance.

Zone	Feeding Section	Compression Section	Homogenization Section	Model Section
Temperature Range°C	90-100	100-110	105-115	110-120

- Above temperature is only for reference.

Storage

keep at room temperature; Storage environment should be clean, dry and ventilated; Best use within six months from the date of production.

Product packing

500kg in each package; Inner lined with plastic sealed film bag; Corrugated carton with tray at the bottom.