



## 【 Peroxide cross-linked polyethylene insulation material】

### DESCRIPTION

Peroxide cross-linked polyethylene insulation material for 35kV and below wires and cables is mainly made of low-density polyethylene as the base material, with the addition of cross-linking and other additives, and is mixed, plasticized and granulated. It does not contain heavy metals and other harmful substances, and has excellent mechanical properties, electrical properties and thermal aging properties. The process is stable and the finished product has a smooth surface.

### CLASSIFICATION

Name	Type	Scope of application
Peroxide cross-linked polyethylene insulator for 10KV and below wires and cables	YJ-10	Insulation layer of 10KV and below cross-linked polyethylene cables
Peroxide cross-linked polyethylene insulator for 35KV and below wires and cables	YJ-35	Insulation layer of 35KV and below cross-linked polyethylene cables

### PROCESSING TECHNOLOGY

This product series offers excellent extrusion rates and surface smoothness across a wide range of processes. While higher melt temperatures can be controlled within a smaller range, a process temperature of 80°C to 120°C is recommended for optimal processing results. However, specific processing conditions will depend on the equipment.

### PERFORMANCE

Inspection items	unit	YJ-10	YJ-35
Original tensile strength	MPa	18.3	19.2
Original elongation at break	%	598	605
Aging temperature	°C	135	135
Aging time	h	168	168
Change rate of tensile strength after aging	%	7	11
Change in elongation at break after aging	%	-9	-14
Thermal extension (0.2 MPa, 15 min)	°C	200	200
Elongation under load	%	55	60
Permanent deformation after cooling	%	3	2
gel content	%	84	86
Volume resistivity at 20°C	·m	$2.2 \times 10^{15}$	$3.4 \times 10^{15}$
Dielectric strength	MV/m	40	41