

# HJ 0301

## Semi-conductive Conductor Shielding Compound for MV Power Cables

### Application

**HJ0301** is a cross-linkable semi-conductive shielding compound, specially designed for bonded conductor of extruded insulated power cables rated voltage up to 36KV. It is suitable for dry vulcanization processing method at high temperature. It provides fine surface smoothness, nice extrusion flowability, good performance to prevent scorch and stable volume resistivity.

Hj0301 has excellent compatibility with copper conductor, without copper-oxidation by adding special accessory ingredient.

### Specifications

**HJ0301** meets the applicable requirements as below when processed using sound extrusion practices and testing procedures.

- AEIC CS 7 and CS 8
- IEC 60840
- ICEA S-66-524/NEMA WC 7
- UL 1072
- IEC 60502

Physical Properties	Test Method	Unit	Typical Value
Density, 23°C	ASTM D1505	g/cm <sup>3</sup>	1.14
Tensile Strength	ASTM D638	MPa	13
Elongation at Break	ASTM D638	%	> 200
After Oven Aging, 168hrs at 136°C			
Tensile Strength Retention	ASTM D638	%	≥ 85
Elongation at Break Retention		%	≥ 85
Hot Set Test, 200°C, 0.2MPa, 15min			
Elongation under Loading	IEC540	%	50
Permanent Deformation after Cooling		%	8
Moisture Content	Karl Fisher	ppm	< 400
Brittleness Temperature	ASTM D746	°C	< - 45
Electrical Properties			
DC Volume Resistivity at			
20°C	ASTM D991	Ω.cm	50
90°C		Ω.cm	500

### Process Technology

① Temperature Setting of Extruder:

a

Zone	1#	2#	3#	4#	Tube	Head
Temp.(°C)	85°C	95°C	100°C	110°C	110°C	110°C

b

Zone	1#	2#	3#	4#	Tube	Head	Feeding, Water Cooling, Screw
Temp.(°C)	80°C	95°C	100°C	110°C	110°C	110°C	65°C

② It' s recommended to use stainless steel wire filter (20×40×20).

③ The above temperature settings are the most typical ones. With different extruder devices, it can be adjusted in terms of the practical situation after extrusion in use, combining with melting pressure and current, in order to achieve the best extrusion result.

### Packages

**HJ0301** is in pellet form and packed in 600kg carton box palletized (inner PE bag packing).

### Storage

**HJ0301** should be stored under clean, cool, dry and ventilated conditions. Away from moisture and directly sunlight.

### Safety

**HJ0301** is not hazardous article. Please refer to our Material Safety Data Sheet (MSDS) for more details.

