SEMICONDUCTOR COMPOUND SMC

Semiconductors are considered a shield that involves the electrical conductor in order to align and confine the electrostatic field.

Also known as electrostatic shields, they are semiconductor materials that involve the electrical conductor in order to align and confine the electrostatic field. This is where the presence of the semiconductor compound has an utmost importance for the uniformity of the radial and longitudinal electric field lines, because due to surface irregularity of the conductor wires, they cause a distortion of the electric field, which end up creating voltage gradients at certain points.

Inside these radial and longitudinal lines of force, present on the internal surface of the dielectric, the conductor must be coated with a non-metallic compound, which makes an intimate contact between the conductor and the internal surface of the insulation, thus eliminating the empty spaces that are responsible for the process partial discharges, the result of which is the destruction of the insulation, which can cause perforations. From an electrical point of view, it can be considered that the conductor's internal semiconductor shielding converts the irregular surface of the cables into a practically smooth cylindrical surface, improving the distribution of the electric field, as illustrated in the figures below.

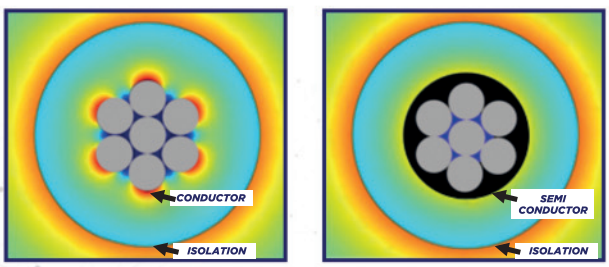
Application

- Power cables;
- Special cables;
- Automotive parts.

Advantages

- Electric field distribution;
- Easy extrudability.

ELECTRIC FIELD DISTRIBUTION



SEMI-CONDUCTOR WITHOUT CONDUCTOR

SEMI-CONDUCTOR WITH CONDUCTOR

- State-of-the art laboratory
- Skilled techinical department
- Quality controlo of finished products
- 24/7 logistics service

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