



PPC INSULATORS

ELECTRIFYING THE WORLD

PPC Insulators

RTV Silicone Coating

High voltage insulator coating service for highly polluted and humid environment

www.ppcinsulators.com

PPC RTV Silicone Coating.

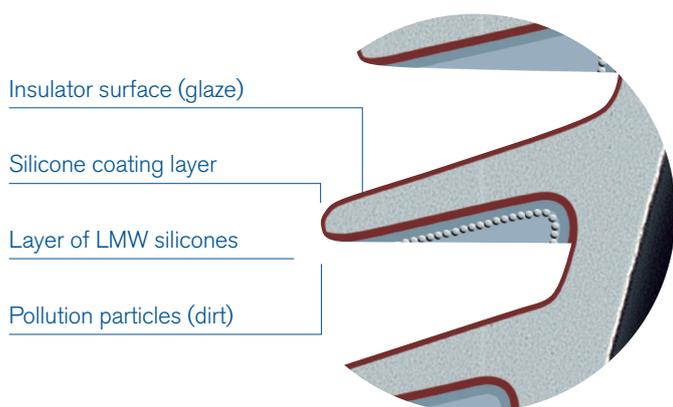
Porcelain Strength Armed with Hydrophobicity

PPC RTV Coating is a coating service for all new or already installed PPC porcelain insulators. Coated with a silicone layer, insulators gain a hydrophobic surface limiting the negative effects of contamination resulting in leakage current and enhancing electrical characteristics.

Extreme environmental conditions and high pollution areas such as industrial, desert and coastal regions cause excessive leakage currents. The surface condition of an insulator in such areas will subsequently lead to a pollution flashover and power system outages. To avoid the electrically conductive layer, resulting from an accumulation of pollutants in combination with moisture, frequent washing or greasing of the insulators is necessary to ensure safe operation. The consequences are high maintenance cost and profit losses because of regular station shutdowns and interruptions in electricity supply.

The Process

The silicone layer is applied to the surface of a new insulator or already installed insulator using a special spray coating technique.



The substitution of polar molecule groups (porcelain) by non-polar molecule groups (room temperature vulcanizing RTV silicone rubber) ensures that hydrophilic surfaces become hydrophobic. Low molecular weight (LMW) components are responsible for the hydrophobic surface of the coating. Water repellency and a low surface energy are obtained on hydrophobic surfaces.

The Result

RTV covering PPC manufactured insulators with a silicone layer combine porcelains undisputed superiority of high mechanical strength as well as its longevity due to inorganic material with the composites excellent behavior in areas with excessive pollution. The insulators' hydrophobic surface combats negative effects of contamination and enhances the electrical insulation characteristics and low leakage currents in highly polluted areas. The result is long lasting hydrophobicity – even on contaminated surfaces. Permanent hydrophobicity is possible due to the hydrophobicity transfer to the pollution layer, spreading the LMW from the silicone bulk material to the pollution layer, ensuring a hydrophobic surface of the insulator.

PPC Insulators is one of the very few insulator manufacturers able to offer high-quality reliable RTV coating from each plant directly to our customers without involving an external company for this service.

PPC RTV Coating Benefits

- excellent self-cleaning characteristics and long-term resistance to weathering and difficult environments
- long-term hydrophobicity
- suppression of leakage current, discharges and pollution flashover
- reduces maintenance expenditures
- facilitated cleaning in case of extreme pollution deposition
- RTV coated surfaces withstand high-pressure jet washing
- minimum 15 years lifecycle
- nontoxic and environmentally friendly material