Chapter 1
Composite Insulator Definition

1.15 DC composite insulator

By Orient Power
Development for DC composite insulator:

The international DC composite insulators have been used in the high voltage dc transmission line since 1967.

As for the distance exceed 800km, the overhead line fees will be lower than the ac lines, because for DC line just need 2 wires, while the AC line should need 3 wires, so it’s found up the DC power system.

Tests for DC composite insulator:

- Coat material erosion resistance test
- Accelerated aging test

Application of considering for composite insulator in DC voltage:

- Insulator design
  1. Material selection of coat: use the high temperature vulcanization silicone rubber
  2. External insulation design: can refer to the design of AC insulator, especially note that there should have enough length for shed diameter shed spacing.
  3. 1000h salt fog test

- DC composite insulator creepage distance:

Knowing the outer insulation of existing in the world

The recommended specific creepage distance.

For more composite insulator information, welcome to visit Orient power website.