Chapter 2
Composite Insulator Types

2.7 Stay Insulator

By Orient Power
Composite stay insulator is very good insulator to replace the porcelain stay insulator.

Polymer stay insulator usually has two types: one is silicone rubber stay insulator, the other is paint coating strain insulator.

**Silicone rubber insulator also can be called silicone guy stain insulator.**

Safety codes mandate the electrical strength of silicone rubber insulator have a dry flashover voltage at least twice the voltage to ground of the highest voltage supply circuit with which the guy could come in contact, and a wet flashover equal to the highest voltage between any two conductors. When using porcelain, two or more insulators are usually needed to comply with these requirements.

Fiberglass guy strain insulator so located that there is a possibility of contact with the supply conductors are prone to electrical tracking and failure.

**Paint coating stay insulator:**

Paint coating is easily removed in handling, and by weathering, and do not adequately protect the rod. Unprotected fiberglass core rod exposed to the elements can fail as a result of brittle fracture.

Guy Strain Insulators are protected from the environment including the effects of voltage, ultra-violet rays and acid rain by a fully bonded, electrically track-free, and impenetrable silicone rubber sheath. The electrical and mechanical requirements of the safety codes are easily met by Orient silicone stay insulator.

**Advantage of polymeric guy strain insulator:**

High mechanical strength: 89KN,97KN,120KN

Not easily broken though lower to the ground