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Chapter 1

Composite Insulator Definition

1.2 Composite Insulator History

By Orient Power

Composite Insulator History



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Throughout history, humans have used composite type materials for insulator in 1800's. The history of insulators began together with development of electrical communications. Ceramic materials and rubber have been used in insulators from 1800 onward.

The process of composite insulator developing

- ◆ In 1850, the first porcelain post insulators were introduced.
- ◆ A few years later, in 1858, glass pin-type insulators appeared.
- ◆ At the beginning of 20th century, suspension insulators became available, and by 1910, cap and pin insulators already had geometrical designs very similar to those seen today.
- ◆ Between 1920 and 1950, there was an almost explosive development of different insulator types and designs with the overall goal to increase performance under contaminated conditions
- ◆ Most often, designers developed geometry of the insulator so as either to enlarge creepage or to increase the self-washing property. Other approaches involved the search for a means to actively combat dry band arcing.
- ◆ In parallel, various efforts concentrated on improving the quality of the different materials and effectiveness of manufacturing technologies.
- ◆ The history of polymeric insulators began in 1940s when organic insulating materials from epoxy resins. These materials were e-Journal of New World Sciences, 2, (4), A0038, 274-294, Gençoğlu, M.T.

Nowadays, all type insulators can be made from composite materials. More and more countries use composite insulators instead porcelain insulators or glass insulators.