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Chapter 3

Composite Insulator Material

3.1.3 Raw material of silicone rubber

By Orient Power

Raw material of silicone rubber



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The importance of the silicone rubber raw material:

- The quality of the composite insulator is decided by the quality of the raw material.
- High quality Silicone rubber raw material decides the good electrical performance and anti-climate ability.

The silicone rubber raw material including:

White carbon black, Aluminum hydroxide, Gum

White carbon black:

A white silica powder made from silicone tetrachloride; used as a replacement for carbon black in rubber compounding.

Aluminum hydroxide:

Archaically called hydrate of alumina or alumina trihydrate ($\text{Al}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$), is found in nature as the mineral gibbsite and its three, much more rare polymorphs: bayerite, doyleite and nordstrandite.

Due to it, the arc resistance, chemical resistance and dimensional stability of the insulator is proved and also the cost is saved.

Gum:

Any viscous or sticky substance exuded by certain plants, which can resemble the white carbon black and aluminum hydroxide.

The silicone rubber is the mixing of white carbon black, aluminum hydroxide and gum.