

Chapter 2 Composite Insulator Types

2.2 Tension Insulator

By Orient Power

Tension Insulator







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Composite tension insulator is also a type of suspension insulator.

Tension insulators are used to provide tension strength on the tower. Normally the strength and section length is larger than the suspension used insulators on the same power line.

Tension insulators are used horizontally.

Components for polymer tension insulator:

- ♦ Core : is reinforced fiber glass
- ♦ Silicone rubber: high temperature vulcanized
- ♦ End fittings

Types of end fitting for silicone rubber insulator:

- ♦ Ball and socket
- ♦ Clevis and tongue
- ♦ Y clevis and eye
- ♦ Eye and oval ring and so on.

Designation of composite tension insulator:

In accordance with IEC 61109, composite tension insulator is assigned a reference designation which indicates:

- ♦ Insulator type
- ♦ Mechanical strength
- Metal end fitting type

Color for composite tension insulator:

- ♦ Red
- ♦ Gray / grey

Test of silicone tension insulator:

- ♦ Dry power frequency flashover
- Wet power frequency flashover
- ♦ Power frequency wet withstand voltage
- ♦ Power frequency dry withstand voltage
- → Lighting impulse withstand voltage