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# **Chapter 6**

## **Composite Insulator Testing**

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### **6.5 Electrical Testing**

**By Orient Power**

# Electrical Testing



**Orient Power**

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Electrical testing is very important step to inspect the insulator performance.

## **Types on the standard IEC61109:**

- Design test: to confirm the material is ok
- Type test: to confirm the design is ok
- Sample test: to confirm batch quality
- Routine test: to confirm every pieces are no problem, normally composite insulator don't need do routine power frequency withstand test, but in order to confirm the quality and no inner defect, it is a rule to do this test within Orient Power.

## **Types of composite insulator electrical testing:**

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

## **Lighting impulse withstand voltage tests:**

Impulses of both positive and negative polarity shall be used. However, when it is evident which polarity will give the lower withstand voltage, it shall suffice to test with that polarity.

## **Power frequency voltage tests:**

The test voltage to be applied to the insulator shall be the specified power frequency withstand voltage adjusted for atmospheric conditions at the time of the test.

The test voltage shall be maintained at this value for 1 min.

More information, you can visit Orient website other chapters.