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Chapter 3

Post Insulator Technic

3.2 Post insulator mechanical strength

By Orient Power

Post insulator mechanical strength

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Post insulator mechanical strength:

- Due to the special requirement of the mechanical strength of the post insulator, there are four kinds of mechanical strength of the post insulator.
- Cantilever breaking load, Specified cantilever load, specified tensile load, specified compression load, specified torsion load. The ANSI C29.11 describes the tests.
- Cannot use just one of these to determine if a post insulator is adequate for the anticipated loads, all these four loads should be taken into consideration.

Cantilever breaking load:

- The maximum load reached during destructive cantilever testing. Damage to the core is likely to occur at loads lower than the cantilever breaking load
- Cantilever strength: 4kN, 6kN, 8kN, 10kN, 12kN, 13.5kN, 15kN.

Specified cantilever load:

The SCL is a value that has to be verified during a cantilever load test, it forms the cantilever basis for selection of a composite post insulator.

Specified tensile load:

- The STL which can be withstood by the insulator when tested in accordance with ANSI C29.11-2004
- Tensile strength: 2KN, 4KN, 6KN, 8KN, 12.5KN

10kN, 12kN, 13.5kN, 15kN.

Specified compression load:

The minimum torsion failing load of the insulator when tested as described in ANSI C29.11-2004.