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Group**

**C411.6-16**

**Line post composite insulators for  
overhead distribution lines  $\leq 75$  kV**

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# Contents

Technical Committee on Insulators	4
Preface	6
<b>1 Scope</b>	<b>7</b>
<b>2 Reference publications</b>	<b>8</b>
<b>3 Definitions</b>	<b>9</b>
<b>4 Line post composite insulator requirements</b>	<b>11</b>
4.1 General	11
4.2 Design	11
<b>5 Design tests</b>	<b>11</b>
5.1 General	11
5.2 Water penetration test	11
5.2.1 Test specimens	11
5.2.2 Test procedure	12
5.2.3 Test evaluation	12
5.3 Accelerated weathering test	13
5.3.1 Test specimens	13
5.3.2 Test procedure	13
5.3.3 Test evaluation	13
5.4 Dye penetration test	13
5.4.1 Test procedure	13
5.4.2 Acceptance criteria	13
5.5 Water diffusion test	14
5.5.1 General	14
5.5.2 Test specimens	14
5.5.3 Pre-stressing	14
5.5.4 Voltage test	14
5.5.5 Acceptance criteria	14
5.6 Power arc test	14
5.6.1 Test specimens	14
5.6.2 Test procedure	14
5.6.3 Test evaluation	15
5.7 Tracking and erosion test	15
5.7.1 Test specimens	15
5.7.2 Test transformer	15
5.7.3 Test procedure	15
5.7.4 Test evaluation	16
5.8 Maximum design cantilever load (MDCL) test	16
5.8.1 Test specimens	16
5.8.2 Test procedure	16
5.8.3 Test evaluation	16
5.9 Tensile load test	16

- 5.10 Thermal mechanical test 16
  - 5.10.1 Test specimens 16
  - 5.10.2 Test procedure 16
  - 5.10.3 Test evaluation 17
- 5.11 Flammability test 17
  - 5.11.1 Test procedure 17
  - 5.11.2 Acceptance criteria 17

## 6 Type tests 17

- 6.1 General 17
- 6.2 Low-frequency wet flashover test 17
- 6.3 Critical impulse flashover test 18
- 6.4 Radio-influence voltage test 18
  - 6.4.1 Test method 18
  - 6.4.2 Acceptance criteria 18
- 6.5 Base/wood crossarm interface test 18
  - 6.5.1 General 18
  - 6.5.2 Test procedure 18
  - 6.5.3 Test evaluation 18

## 7 Sample tests 18

- 7.1 General 18
- 7.2 Lot and sample size 19
- 7.3 Dimensions, markings, and metal fittings 19
- 7.4 Cantilever load test 19
  - 7.4.1 Test specimens 19
  - 7.4.2 Test procedure 19
  - 7.4.3 Test evaluation 19
- 7.5 Galvanizing test 19
- 7.6 End fitting seal test 19
- 7.7 Dye penetration test 19
- 7.8 Retest procedure 20

## 8 Routine tests 20

- 8.1 General 20
- 8.2 Tensile load test 20
- 8.3 Visual examination 20
- 8.4 Rejection criteria 20

## 9 Quality management system 20

## 10 Markings 21

## 11 Packaging 21

- 
- Annex A (normative) — Tracking wheel no. 1 30
  - Annex B (normative) — Tracking wheel no. 2 32
  - Annex C (informative) — Type tests: Guidelines for selection of insulators 34
  - Annex D (informative) — Example of Design test report: Line post composite insulator 43

Annex E (informative) — Example of Type test report: Line post composite insulator	51
Annex F (informative) — Example of Sample/routine test report	56
Annex G (informative) — Guidelines for determining combined loading	58

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# Preface

This is the second edition of CSA C411.6, *Line post composite insulators for overhead distribution lines  $\leq 75$  kV*. It supersedes the previous edition, published in 2011.

This Standard is based on the requirements of Canadian Electricity Association (CEA) LWIWG-02 (96), *Line Post Composite Insulator for Overhead Distribution Lines* (used with permission from CEA).

This Standard was prepared by the Technical Committee on Insulators, under the jurisdiction of the Strategic Steering Committee on Power Engineering and Electromagnetic Compatibility, and has been formally approved by the Technical Committee.

## Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
- 4) *To submit a request for interpretation of this Standard, please send the following information to [inquiries@csagroup.org](mailto:inquiries@csagroup.org) and include “Request for interpretation” in the subject line:*
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  - b) *provide an explanation of circumstances surrounding the actual field condition; and*
  - c) *where possible, phrase the request in such a way that a specific “yes” or “no” answer will address the issue.*

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  - a) *Standard designation (number);*
  - b) *relevant clause, table, and/or figure number;*
  - c) *wording of the proposed change; and*
  - d) *rationale for the change.*

# C411.6-16

## ***Line post composite insulators for overhead distribution lines $\leq 75$ kV***

### **1 Scope**

#### **1.1**

This Standard covers the requirements for line post composite insulators used on overhead distribution lines operating at nominal voltages up to and including 75 kV. Line post insulators support the line conductor horizontally or vertically. They are subjected to tensile, cantilever, and compressive loads.

These composite insulators are intended to operate in a service environment within a temperature range of  $-50$  to  $50$  °C.

#### **1.2**

This Standard defines terms, prescribes test methods, and specifies acceptance or failure criteria. Clauses 4 to 8 specify the material, product qualification, construction, and test requirements applicable to these insulators. Annexes D, E, and F provide examples of design, type, and sample/routine test reports. Annex G provides guidelines for combined loading.

#### **1.3**

This Standard deals with composite insulators having a core with metal fittings and a housing and sheds. The core has resin-impregnated glass fibres. The metal fittings are aluminum, steel, or iron.

#### **1.4**

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.