



ANSI/NEMA C29.10-1989 (R2002, R2012)

American National Standard

**For Wet Process Porcelain Insulators—
Indoor Apparatus Type**

Secretariat:

National Electrical Manufacturers Association

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FOREWORD

(This Foreword is not part of American National Standard C29.10-1989 (R2002, R2012))

In this standard are specified the material, dimensional, and performance requirements for indoor apparatus wet-process porcelain insulators used in electric power transmission and distribution. Included are requirements for testing thermal and mechanical strength, impulse and dew withstand values, flashover value, porosity, and, when galvanized hardware is used, coating thickness.

This standard supersedes ANSI C37.31-1962 (R1976), which had been developed by the Accredited Standards Committee on Power Switchgear, C37, and approved as an American National Standard on April 17, 1962. Responsibility for this standard has been transferred to the Accredited Standards Committee on Insulators for Electric Power Lines, C29, by mutual agreement between both committees. The purpose of this revision and redesignation is to bring the standard up to date and in line with present-day requirements.

Suggestions for improvement of this standard will be welcome. They should be sent to the National Electrical Manufacturers Association, 1300 North 17th Street, Rosslyn, VA 22209

This standard was processed and approved for submittal to ANSI by Accredited Standards Committee on Insulators for Electric Power Lines, C29. Committee approval of the standard does not necessarily imply that all committee members voted for approval. At the time it approved this standard, the ASC C-29 Committee had the following members:

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T. Grisham
J. Hildreth
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National Electrical Manufacturers Association

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Z. Lodi (alt)
E. Niedospial (alt)
A. Schwalm (alt)

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Tennessee Valley Authority

J. Nelson

Western Area Power Administration

R. Clark

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AMERICAN NATIONAL STANDARD**ANSI/NEMA C29.10-1989
(R2002, R2012)**

For Wet Process Porcelain Insulators—Indoor Apparatus Type**1 SCOPE**

This standard covers high-voltage indoor-apparatus insulators made of wet-process porcelain and used in the transmission and distribution of electrical energy.

2 REFERENCED STANDARDS

2.1 American National Standard. This standard is intended to be used in conjunction with American National Standard for Electrical Power Insulators – Test Methods, ANSI C29.1-1988 (R2012). When the referenced standard is superseded by a revision approved by the American National Standards Institute, Inc, the revision shall apply.

2.2 Other Standard. This standard is also intended to be used in conjunction with the following standards:

ASTM A 153-82 (1987), Specifications for Zinc Coating (Hot Dip) on Iron and Steel Hardware

ASTM D 1535-80, Method for Specifying Color by the Munsell System

3 DEFINITIONS

See Section 2 of ANSI C29.1-1988 (R2012) for definitions of terms.

4 GENERAL

4.1 Insulators shall conform in all respects to the requirements of this standard. The text, figures, and tables supplement each other and shall be considered part of this standard.

4.2 Manufacturer's drawings, if furnished, shall show the outline of the insulators, together with all pertinent dimensions. Any variations in these dimensions due to manufacturing tolerances shall be indicated.

5 MATERIAL

5.1 The insulators shall be made of wet-process porcelain of good commercial grade.

5.2 The entire surface of the insulator, with the exception of a firing surface, shall be glazed. The entire surface shall be relatively free from imperfections. Color is not a part of this standard. If gray is required, it shall be in accordance with ASTM D 1535-80, and conform to Munsell notation 5BG 7.0/0.4 with the following tolerances:

- (1) Hue: ± 12 (3G to 7B)
- (2) Value: ± 0.5
- (3) Chroma: -0.2 to +0.6

5.3 Metal parts shall be made of a good commercial grade of malleable iron, ductile iron or steel, gray iron, zinc alloy, or aluminum alloy. Ferrous parts other than stainless steel, when galvanized, shall be galvanized in accordance with ASTM A 153-82 (1987).