NEMA Standards Publication

ANSI/NEMA C29.3-1986 (R2002, R2012)

American National Standard for Wet-Process Porcelain Insulators - Spool Type

National Electrical Manufacturers Association

National Electrical Manufacturers Association
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American National Standard

Wet Process Porcelain Insulators—Spool Type

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FOREWORD

(This foreword is not part of American National Standard C29.3-1986 (R2012))

The first edition of this standard was issued in 1961 and was based essentially on the EEI-NEMA (Edison Electric Institute-National Electrical Manufacturers Association) Standards for Wet-Process Porcelain Insulators (Spool Type), EEI TDJ-53, NEMA 141-1952. Subsequent revisions were developed by the American National Standards Committee on Insulators for Electric Power Lines, ASC C-29.

The principal differences between the 1977 and 1961 editions were: a change of color requirements; addition of neck designations, dimensions, and tolerances; deletion of requirements for manufacturer's production sampling and tests; and deletion of the statement regarding certified test data with regard to design tests. In the 1980 edition, all values were converted from U.S. customary units to SI units. The 1986 edition moves Section 7, Packaging, to the Appendix.

Suggestions for improvement of this standard will be welcome. They should be sent to 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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AMERICAN NATIONAL STANDARD ANSI/NEMA C29.3-1986 (R2012)

Wet Process Porcelain Insulators—Spool Type

1 SCOPE

This standard covers spool-type insulators made of wet-process porcelain and used in the transmission and distribution of electric energy.

2 REFERENCED AMERICAN NATIONAL STANDARDS

This standard is intended to be used in conjunction with the following American National Standards. When the referenced standards are superseded by a revision approved by the American National Standards Institute, Inc., the revision shall apply.

ANSI C29.1-1988 (R2012) *Test Methods for Electrical Power Insulators*
ANSI Z55.1-1967 (R1973) *Gray Finishes for Industrial Apparatus and Equipment*

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 and figures 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 good commercial-grade wet-process porcelain.

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 ANSI Z55.1-1967 (R1973), 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

6 DIMENSIONS AND CHARACTERISTICS

6.1 Figures 1 through 5 (see pages 4-8) are drawings of insulator types. Dimensions and characteristics of the insulators shall be in accordance with these figures.