NEMA Standards Publication

ANSI C80.1-2005

American National Standard for Electrical Rigid Steel Conduit (ERSC)

National Electrical Manufacturers Association

ANSI C80.1-2005

American National Standard

for Electrical Rigid Steel Conduit
(ERSC)

ANSI C80.1-2005
Revision of
ANSI C80.1-1994

American National Standard

For Electrical Rigid Steel Conduit (ERSC)

Secretariat:

National Electrical Manufacturers Association

Approved August 18, 2005

American National Standards Institute, Inc.

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Published by

National Electrical Manufacturers Association
1300 North 17th Street, Rosslyn, VA 22209

Printed in the United States of America

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Foreword (This Foreword is not part of American National Standard C80.1-2005.)

This standard was developed by the Accredited Standards Committee on Raceways for Electrical Wiring Systems, C80. The objective of the committee is to produce a comprehensive specification that would establish uniform dimensions and standard construction requirements for Electrical Rigid Steel Conduit, Steel Electrical Metallic Tubing, Electrical Intermediate Metal Conduit and Electrical Aluminum Rigid Conduit raceway products and their associated components.

The standard was originally approved in 1950 and revised in 1953, 1959, 1963, 1966, 1977, 1983, 1990, 1994 and 2005.

Suggestions for improvement of this standard will be welcomed. They should be sent to:
National Electrical Manufacturers Association
1300 North 17th Street, Suite 1847
Rosslyn, VA 22209.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Raceways for Electrical Wiring Systems, C80. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the C80 Committee had the following members:

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For Electrical Rigid Steel Conduit (ERSC)

1 Scope

This standard covers the requirements for electrical rigid steel conduit for use as a raceway for wires or cables of an electrical system. Finished conduit is produced in nominal 10 ft (3.05 m) lengths, threaded on each end with one coupling attached. It is protected on the exterior surface with a metallic zinc coating or alternate corrosion protection coating (as specified in the 13th edition of UL 6 in Clauses 5.3.3, 6.2.4, 7.8 and 7.9) and on the interior surface with a zinc or organic coating.

This standard also covers conduit couplings, elbows, nipples and conduit lengths other than 10 ft (3.05 m).

Properly assembled systems of conduit, couplings, elbows and nipples, manufactured in accordance with this standard, and other identified fittings provide for the electrical continuity required of an equipment grounding conductor.

2 Normative References

The following standards contain provisions which, through reference in this text, constitute requirements of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below unless otherwise specified.

ANSI/ASME B1.20.1, *Pipe Threads, General Purpose (Inch)*

ASTM A 239 – 95 (1999), *Standard Practice for Locating the Thinnest Spot in a Zinc (Galvanized) Coating on Iron or Steel Articles*

ASTM B 499 – 96, *Standard Test Method for Measurement of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals*

UL 6, *Electrical Rigid Metal Conduit --- Steel*

3 Definitions

3.1 electrical rigid steel conduit (ERSC): A threadable steel raceway of circular cross-section designed for the physical protection and routing of wire conductors and use as an equipment grounding conductor.

3.2 threaded coupling: An internally threaded steel cylinder for joining together the components of an ERSC system.

3.3 elbow: A manufactured curved section of ERSC threaded on each end.