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ANSI C80.1-2015

American National Standard for Electric Rigid Steel Conduit

National Electrical Manufacturers Association

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Secretariat:

National Electrical Manufacturers Association

Approved July 6, 2015

American National Standards Institute, Inc.

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Foreword (This Foreword is not part of American National Standard C80.1-2015.)

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 will 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.

This standard was originally approved in 1950 and revised in 1953, 1959, 1963, 1966, 1977, 1983, 1990, 1994, 2004, and 2005.

Suggestions for improvement of this standard are welcome. They should be sent to:

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This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee (ASC C80), Raceways for Electrical Wiring Systems. 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:

M. J. Brett, Jr, Chairman
J. G. Solis, Secretary

Organization Represented:	*Name of Representative:*
Allied Tube & Conduit, a Part of Atkore International	R. Horner
Appleton Group	S. Blais
International Association of Electrical Inspectors	D. Humphrey
International Brotherhood of Electrical Workers	P. Hickman
National Electrical Contractors Association	M. Johnston
R & N Associates	R. Loyd
Republic Conduit	P. Douglas
SAPA Extrusion North America	H. E. Harper, Jr.
Western Tube & Conduit Corporation	J. Bloom
Wheatland Tube Company	M. Brett, Jr.

The following members of the NEMA Steel Conduit & Electrical Metallic Tubing - Codes/Communications/ Technical Committee worked on this standard prior to its publication:

J. Burris, Co-Chair
R. Horner, Co-Chair
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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 clauses 5.3.3, 6.2.4, 7.8, and 7.9 in UL 6) 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 that, 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.

ASME B1.20.1 - 13	*Pipe Threads, General Purpose (Inch)*
ASTM A239 – 14	*Standard Practice for Locating the Thinnest Spot in a Zinc (Galvanized) Coating on Iron or Steel Articles*
ASTM B117 – 11	*Standard Practice for Operating Salt Spray (Fog) Apparatus*
ASTM B499 – 09 (2014)	*Standard Test Method for Measurement of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals*
ASTM D638 – 14	*Standard Test Method for Tensile Properties of Plastics*
ASTM D1654 – 08	*Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments*
ASTM D2444 – 99 (2010)	*Standard Test Method for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)*
ASTM D3359 – 09e2	*Standard Test Method for Measuring Adhesion by Tape Test*
ASTM G 151 – 10	*Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources*
ASTM G 153 – 13	*Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials*
ASTM G 155 – 13	*Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials*
UL 6 - 07	*Electrical Rigid Metal Conduit - Steel*
UL 514B - 12	*Conduit, Tubing, and Cable Fittings*

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