NEMA Standards Publication

ANSI C80.3-2015

American National Standard for Electrical Metallic Tubing—Steel (EMT-S)

National Electrical Manufacturers Association

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Secretariat:

National Electrical Manufacturers Association

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American National Standards Institute, Inc.

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Foreword (This foreword is not part of American National Standard C80.3-2015.)

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 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, 1991, 1994, 2005, and 2015.

Suggestions for improvement of this standard will be welcomed. They should be sent to the National Electrical Manufacturers Association, 1300 North 17th Street, Suite 900, Rosslyn, Virginia 22209.

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

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

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

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1 Scope

This standard covers the requirements for steel electrical metallic tubing, for use as a raceway for wires or cables of an electrical system. Finished tubing is typically furnished in nominal 10-ft (3.05-m) lengths. It is protected on the exterior surface with a metallic zinc coating or alternate corrosion protection coating (see UL 797 for alternate corrosion protection coating requirements) and on the interior surface with a zinc or organic coating.

This standard also covers electrical metallic tubing elbows.

Properly assembled systems of EMT-S, 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.

ASTM A239 – 14	Standard Practice for Locating the Thinnest Spot in a Zinc (Galvanized) Coating on Iron or Steel Articles 1, 2
ASTM B117 – 11	Standard Practice for Operating Salt Spray (Fog) Apparatus
ASTM B499 – 96 (2002)	Standard Test Method for Measurement of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals
ASTM B499 -09	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 Methods for Measuring Adhesion by Tape Test
ASTM G151 – 10	Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources
ASTM G153 – 13	Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
ASTM G155 – 13	Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials
UL 797	Electrical Metallic Tubing – Steel