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Polyvinyl-Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit

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Foreword

The purpose of this Standards Publication is to describe plastic coatings which are applied to galvanized rigid steel conduit and galvanized steel intermediate metal conduit. This Standard covers the properties and dimensions of these coatings and is intended as an aid for selecting and obtaining the proper coating for added corrosion protection in various applications of these electrical raceways.

Publication No. RN 1-2005 supersedes RN 1-1998. NEMA Standards and Authorized Engineering Information, which appears in this publication unchanged from earlier editions of this standard dating back to RN 1-1980, was reaffirmed. Metric designators and dimensions have been added. Information which has been revised is followed by the appropriate classification and the revision date.

User needs have been considered in the development of this Standards Publication.

This Standards Publication is reviewed periodically by the Steel Rigid Conduit and Electrical Metallic Tubing Section of NEMA for changes which may be necessary to keep it up-to-date with advancing technology. Proposed or recommended revisions should be submitted to:

Vice President, Technical Services
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This Standards Publication was developed by the NEMA Steel Rigid Conduit and Electrical Metallic Tubing Section. Section approval of the standard does not necessarily imply that all section members voted for its approval or participated in its development. At the time it was approved, the Section was composed of the following members:

Allied Tube and Conduit Corporation—Harvey, IL
Beck Manufacturing, Inc. – Picoma Industries—Waynesboro, PA
Maverick Tube/Republic Conduit—Chesterfield, MO
Robroy Industries, Inc.—Verona, PA
Thomas & Betts Corporation—Memphis, TN
Western Tube and Conduit Corporation—Long Beach, CA
Wheatland Tube—Collingswood, NJ

Section 1
GENERAL

1.1 SCOPE

These standards cover continuous polyvinyl chloride exterior coatings, corrosion resistant interior coatings, and the galvanized steel conduit, galvanized steel intermediate metal conduit, threaded couplings, and elbows to which they may be applied.

1.2 REFERENCED STANDARDS

The following publications are adopted in whole or in part, as indicated by reference in this Standards Publication.

American National Standards Institute (ANSI)
11 West 42nd Street
New York, NY 10036

C80.1-2005 *American National Standard for Rigid Steel Conduit–Zinc Coated*

C80.6-2005 *American National Standard for Intermediate Metal Conduit*

American Society for Testing and Materials (ASTM)
100 Barr Harbor Drive
West Conshohocken, PA 19428

D149-97a(2004) *Standard Test Methods for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies*
This method describes a procedure for the determination of dielectric strength of solid, semi-solid, and liquid electrical insulating materials.

D638-03 *Standard Test Method for Tensile Properties of Plastics*
This test method is used to determine the tensile strength and the percent elongation of plastic coating compounds. A Type IV specimen is tested at a crosshead speed of 2 inches (50.8 mm) per minute.

D1790-02 *Standard Test Method for Brittleness Temperature of Plastic Film by Impact*
This method covers the determination of that temperature at which plastic film 0.25 mm (10 mils) or less in thickness exhibits a brittle failure.

D2240-04 *Standard Test Method for Rubber Property – Durometer Hardness*
This method is used to determine the Shore A and Shore D hardness of PVC coating compounds.

G6[illegible]98 *Standard Test Method for Abrasion Resistance of Pipeline Coatings*
This method is used to determine the abrasion resistance of the applied coating material. It measures the time to loss of infinite resistance when the coating is subjected to an abrasive slurry.