UL 1990

STANDARD FOR SAFETY

Nonmetallic Underground HDPE Conduit with Conductors

UL Standard for Safety for Nonmetallic Underground HDPE Conduit with Conductors, UL 1990

Fourth Edition, Dated May 10, 2023

Summary of Topics

This revision of ANSI/UL 1990 dated January 3, 2024 includes the following changes in requirements:

– Referenced Publication Correction; Section 2, Section 2A

– Unit Conversion Error; Section 9.1

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The revised requirements are substantially in accordance with Proposal(s) on this subject dated November 3, 2023.

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Standard for Nonmetallic Underground HDPE Conduit with Conductors

First Edition – April, 1998
Second Edition – August, 2005
Third Edition – November, 2013

Fourth Edition

May 10, 2023

This ANSI/UL Standard for Safety consists of the Fourth Edition including revisions through January 3, 2024.

The most recent designation of ANSI/UL 1990 as an American National Standard (ANSI) occurred on January 3, 2024. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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INTRODUCTION

1 Scope

1.1 These requirements cover nonmetallic underground High Density Polyethylene (HDPE) conduit with conductors. These products consist of a factory assembly of conductors or cables inside a coilable, smooth-wall, continuous length conduit with a circular cross section. The conduit is Schedule-40, Schedule-80, EPEC-9, EPEC-11, EPEC-13.5 or EPEC-A conduit in trade sizes 1/2 (16) – 4 (103). This product is intended for installation in accordance with the National Electrical Code, NFPA 70. The values in parentheses are metric trade designators of conduit. The designations Schedule-40, Schedule-80, EPEC-9, EPEC-11, EPEC-13.5, and EPEC-A refer to conduit having specific outside diameters and wall thicknesses.

1.2 HDPE conduit material, dimensions and performance requirements are defined with reference to UL 651A. Requirements specific to conduit with conductors are included in this standard.

1.3 This product is for aboveground use where encased in not less than 2 inches (51 mm) of concrete and for underground use by direct burial or encasement in concrete.

2 Undated References

2.1 *Deleted*

2A Referenced Publications

2A.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard.

2A.2 The following publications are referenced in this Standard:

ASTM D2412, *Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel Plate Loading*

IEEE 1210, *Standard Tests for Determining Compatibility of Cable-Pulling Lubricants with Wire and Cable*

NFPA 70, *National Electrical Code*

UL 651A, *High Density Polyethylene (HDPE) Conduit*

3 Units of Measurement

3.1 When a value for measurement is followed by a value in other units in parentheses, the first stated value is the requirement.

CONSTRUCTION

4 General

4.1 Conduit shall be essentially circular in cross section. The inside surface of conduit shall be without indentations (normal convolutions are not to be considered as indentations), projections, roughness, or other features that could damage or impede wires and cables being pulled into the conduit.