

STANDARD FOR
WEATHER-RESISTANT
POLYETHYLENE COVERED
CONDUCTORS

Approved by
AMERICAN NATIONAL STANDARDS INSTITUTE

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*Standard For Weather-Resistant Polyethylene
Covered Conductors*

Developed and Published By

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Contents

		<u>Page</u>
	Foreword	iii
Section I	General	
1.1	Scope	1
1.2	Design Options	1
1.3	Operating Conditions	2
1.4	Testing and Test Frequency	2
1.5	Test Methods	2
Section 2	Conductors	
2.0	General	3
2.1	Physical and Electrical Properties	3
	2.1.1 Copper Conductors	3
	2.1.2 Aluminum Conductors	3
	2.1.3 Aluminum Conductor, Coated-Steel Reinforced.	4
	2.1.4 Aluminum Conductor, Aluminum-Clad Reinforced	4
	2.1.5 Copper and Copper-Clad Steel Composite	4
2.2	Conductor Size Units.	4
2.3	Conductor dc Resistance Per Unit Length	4
	2.3.1 Direct Measurement of dc Resistance Per Unit Length	5
	2.3.2 Calculation of dc Resistance Per Unit Length	5
2.4	Conductor Rated Strength	5
2.5	Conductor Diameter	6
Section 3	Covering	
3.1	Material	7
	3.1.1 Requirements for 75°C Covering for Normal Service Operation	7
	3.1.2 Requirements for 90°C Covering for Normal Service Operation	7
3.2	Covering Thickness Requirements	7
3.3	Covering Physical Requirements	7
3.4	Separator	7
Section 4	Performance Requirements For Finished Conductors	
4.1	General	16
4.2	Strength of Covered Conductors	16
Section 5	Test Methods For Coverings	
5.1	Method for Measuring Covered Physical and Air Oven Aging Properties	17
5.2	Method for Measuring Covering Heat Deformation (Distortion)	17
5.3	Method for Measuring Covering Hot Creep	17
5.4	Method for Measuring Absorption Coefficient	17

		<u>Page</u>
Section 6	Qualification Tests	
6.1	General	18
6.2	Method for Determining Resistance to Environmental Stress Cracking	18
6.3	Sunlight Resistance of Covering Materials with Less than 2 Percent Carbon Black	18
	6.3.1 Qualification	18
	6.3.2 Sunlight Resistance	18
	6.3.2.1 Carbon-Arc Weather-O-Meter	18
	6.3.2.2 Xenon-Arc Weather-O-Meter	18
APPENDICES		
A	Titles and Dates of Industry Standards Referenced in this Document	20
B	Recommended Bending Radii for Covered Conductors	22
C	English/Metric Conversion	22
LIST OF TABLES		
3-1	Aluminum 1350 Conductor Constructions	8
3-1 (Metric)	Aluminum 1350 Conductor Constructions	9
3-2	Aluminum Conductors, Coated-Steel Reinforced (ACSR), and Aluminum-Clad Steel Reinforced (ACSR/AW) Constructions	10
3-2 (Metric)	Aluminum Conductors, Coated-Steel Reinforced (ACSR), and Aluminum-Clad Steel Reinforced (ACSR/AW) Constructions	11
3-3	Aluminum-Alloy 6201-T81 Conductor Constructions	12
3-3 (Metric)	Aluminum-Alloy 6201-T81 Conductor Constructions	12
3-4	Copper Conductor Constructions.	13
3-4 (Metric)	Copper Conductor Constructions	14
3-5	Covering Physical Requirements	15
6-1	Qualification Test Requirements	19

Foreword

ICEA standards and guides are adopted in the public interest and are designed to eliminate misunderstanding between the manufacturer and user and to assist the user in selecting and obtaining proper products for his particular need. Existence of an ICEA standard or guide does not in any respect preclude the manufacture or use of products not conforming to the standard or guide.

The user of this Standard is cautioned to observe any applicable health or safety regulations and rules relative to the manufacture and use of cable made in conformity with this Standard. This Standard hereafter assumes that manufacture, testing, installation and maintenance of cables defined by this publication will be performed only by properly trained personnel using suitable equipment.

Requests for interpretation of this Standard must be submitted in writing to the Insulated Cable Engineers Association at the address below. An official written interpretation will be provided. Suggestions for improvements gained in the use of this Standard will be welcomed by the Association.

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Section 1 GENERAL

1.1 SCOPE

This standard applies to the materials, constructions, and testing of weather-resistant thermoplastic and crosslinked polyethylene covered conductors, rated for 75°C or 90°C normal service temperature. These conductors are intended primarily for the distribution of electrical energy under normal conditions of overhead (aerial) installations and service outdoors.

The coverings carry no voltage rating, and the conductors must be installed on insulators adequate for the service voltage. The user may want to give consideration to the dielectric compatibility of the covering, insulator, and conductor/insulator tie.

When reference is made in this publication to an industry standard, that reference is to the standard with the title and date of issue listed in Appendix A. Where a conflict exists between the requirements of this standard and those of a referenced standard, the requirements of this standard shall apply.

The recommended bending radii for conductors is given in Appendix B.

U.S. Customary units, except for temperature, are specified throughout this standard and are the controlling units. Approximate International System of Units (SI) equivalents are included for information only. The rounding-off method of ASTM E 29 shall be used for determining conformance with requirements. To convert from an English unit to the appropriate SI unit, multiply the value of the English unit by the appropriate number from Appendix C.

1.2 DESIGN OPTIONS

The user of this standard should recognize that it covers many options. The user should select the necessary options required for a complete description of the covered conductors.

This standard covers constructions with substantially different rated strengths. The user of this standard should determine that the rated breaking strength of each conductor used for each application is adequate for that application, as determined by paragraph 4.2 and the relevant ASTM standard for the bare version of that conductor, and the requirements of the latest edition of the National Electrical Safety Code.

The Aluminum Association Publication No. 50 "Code Words for Overhead Aluminum Electrical Conductors", lists the code words that have been registered for aluminum conductors. Code words in Tables 3-1 through 3-3 are for information only.