

**ICEA STANDARD FOR
TELECOMMUNICATIONS CABLE
FILLED, POLYOLEFIN INSULATED, COPPER CONDUCTOR
TECHNICAL REQUIREMENTS**

Published By

INSULATED CABLE ENGINEERS ASSOCIATION, INC.
Post Office Box 1568
Carrollton, GA 30112, U.S.A.

Fifth Edition

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Approved March 3, 2010 by
Insulated Cable Engineers Association, Inc.

Approved by ANSI ASC C-8
American National Standards Institute

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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 Standard will be performed only by properly trained personnel using suitable equipment and employing appropriate safety precautions.

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Secretary
Insulated Cable Engineers Association
P.O. Box 1568
Carrollton, GA 30112
United States of America

This Standard was developed by the ICEA Communications Division, WG-608. It was approved by ICEA on March 3, 2010.

The members of the ICEA Communications Division, Working Group 608 who participated in this project were:

P. Fraley
G. Dorna

D. K. Baker
T. Zou
D. Taylor

J. Baer
T. McLaughlin

The following participated in an advisory capacity to WG-608:

Joe Mafnas

RUS

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ACRONYMS, ABBREVIATIONS AND SYMBOLS

ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
°C	Degrees of Temperature, Celsius scale, Centigrade
dB	decibel
dc	Direct Current
EIA	Electronic Industries Alliance
ELFEXT	Equal Level Far-End Crosstalk
°F	Degrees of Temperature, Fahrenheit scale
ft	foot or feet
g	gram
ICEA	Insulated Cable Engineers Association
in	inch
ISO	International Organization for Standardization
kHz	kilohertz
kV	kilovolt
lb	pounds
lbf	pounds of force
MHz	Megahertz
m	meter
mm	millimeter
Mpa	megapascal
N	Newton
nF	nanofarad
NEXT	Near-End Crosstalk
NESC	National Electrical Safety Code
ns	nanoseconds
pF	picofarad
psi	pounds per square inch
PSELFEXT	power sum equal level far end crosstalk
PSNEXT	power sum near end crosstalk
rms	root mean square
α	Attenuation

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TECHNICAL REQUIREMENTS**

SECTION 1 GENERAL

- 1.1 **PURPOSE:** The purpose of this Standard is to establish generic technical requirements that may be referenced by individual telecommunications cable specifications covering products intended for normal outside plant use. The parameters covered provide material, construction, and performance requirements that are applicable to filled, polyolefin insulated and jacketed cables of all pair counts, including a variety of shield and jacket combinations and optional compartmental screening.

Because this Standard does not cover all details of individual cable design, it cannot be used as a single document for procurement of product. It is intended to be used in conjunction with an individual product specification that provides complete design details for the specific cable type and designates the applicable performance requirements. Such individual cable specifications may be prepared either by the user or the manufacturer. The specification designated for procurement is at the option of the user.

- 1.2 **SCOPE:** This Standard covers mechanical and electrical requirements for filled, polyolefin insulated, copper conductor telecommunications cable. It provides alternative choices for type of insulation, type of filling compound, core lay-ups, color code, sheath design (shielding materials, single or double jackets, and jacket thicknesses), and screened or non-screened core.