

ICEA STANDARD FOR
CATEGORY 3
INDIVIDUALLY UNSHIELDED TWISTED PAIR INDOOR CABLE FOR USE IN
GENERAL PURPOSE NON-LAN
TELECOMMUNICATIONS WIRING SYSTEMS
TECHNICAL REQUIREMENTS

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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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ACRONYMS, ABBREVIATIONS AND SYMBOLS

ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
ASQC	American Society for Quality Control
AWG	American Wire Gauge
°C	Degrees of Temperature, Celsius scale, Centigrade
CM	UL Listing designation for General Purpose Communication Cable
CMG	UL Listing designation for General Purpose Communication Cable
CMR	UL Listing designation for Riser Communication Cable
CMP	UL Listing designation for Plenum Communication Cable
CMX	UL Listing designation for Communication Cable, Limited Use
dB	decibel
DC	Direct Current
°F	Degrees of Temperature, Fahrenheit scale
ft	foot or feet
g	gram
ICEA	Insulated Cable Engineers Association
in	inch
kHz	kilohertz
kg	kilogram
lbf	pounds of force
LAN	Local Area Network
MHz	Megahertz
m	meter
mm	millimeter
MPa	megapascal
N	Newton
NEC	National Electrical Code
NEXT	Near-End Crosstalk
NFPA	National Fire Protection Association
ns	nanoseconds
pF	picofarad
P-P NEXT	Pair-To-Pair Near-End Crosstalk
PS NEXT	Power Sum Near-End Crosstalk
psi	pounds per square inch
S	Siemen
SI	International System of Units
SRL	Structural Return Loss
UL	Underwriters Laboratories
°	degree symbol, temperature or angle
α	Attenuation

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**CATEGORY 3 INDIVIDUALLY UNSHIELDED TWISTED PAIR
INDOOR CABLE FOR USE IN GENERAL PURPOSE, NON-LAN,
TELECOMMUNICATIONS WIRING SYSTEMS
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 thermoplastic insulated and jacketed inside wiring products intended for normal indoor premises use in the wiring systems of communication users. The parameters covered provide material, construction, performance requirements, and test procedures.

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

- 1.2 **SCOPE:** This Standard covers mechanical, electrical and flammability requirements for thermoplastic insulated and jacketed, copper conductor, inside wiring cables intended primarily for general purpose communication applications in telephone company central offices or on consumer premises in non-LAN (Local Area Network) applications.

Material, construction, performance and flammability requirements are included in the Standard, together with applicable test procedures.

All designs covered by this Standard are for indoor use only. Products covered by this Standard are intended only for operation with voltages and currents normally found in communication systems. Typically, these cables are installed in exposed areas, e.g., surface mounted on cable racks and in concealed areas, e.g., within raceways.

The inside wiring cables covered by this Standard are intended for voice, text, data, video, and image transmission with transmission characteristics specified for frequencies up to 16 MHz. These cables have a minimum transmission performance of Category 3 except for those parameters that are gauge dependent (attenuation, dc resistance).

This Standard is arranged in Sections covering specific areas of cable requirements and may be referenced as complete Sections or individual paragraphs.