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Riser Cables Technical
Requirements

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RISER CABLES TECHNICAL REQUIREMENTS

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FOREWORD

(This Foreword is not part of this Standard.)

ICEA Standards 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 a particular need. The existence of an ICEA Standard does not in any respect preclude the manufacture or use of products not conforming to this Standard.

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 only properly trained personnel using suitable equipment will manufacture, test, install, and/or perform maintenance on cables defined by this Standard.

Requests for interpretation of this ICEA Standard must be submitted in writing (hard copy or email) to the Secretary of the Insulated Cable Engineers Association. The mailing address of ICEA Headquarters and a Contact link are shown on the ICEA web site - www.icea.net. An official written interpretation will be provided.

This Standard was approved by ICEA on October 24, 2017. The members of the ICEA Communications Cable Section, Working Group 701, who participated in this project, were:

S. Thwaites,

J. Pavlicek,

G. Dorna,

Ron Stanko

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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 indoor premises use in the wiring systems of communications users. The parameters covered provide material, construction, and performance requirements.

Because this Standard does not cover all details of individual cable design, it cannot be used as a single document for procurement of product. This Standard is intended for use 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, electrical and flammability requirements for Riser cables. Depending upon the application and system requirements, this Standard provides choices for materials and transmission characteristics.

For those characteristics where no differentiation is made, the performance requirements are applicable to all cables. Selection of the applicable type shall be at the discretion of the user and shall be designated in the product specification.

1.3 OPTIONS AND INFORMATION

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

Riser cables are suitable for runs in vertical shafts of multi-story buildings. The typical cable construction is individually unshielded twisted pair of thermoplastic insulated copper conductors, with an overall 8-mil bonded aluminum shield and thermoplastic jacket. Such cables are typically available in pair counts from 25-3600.

These cables are intended for voice, text, data, video, and image transmission and are categorized by electrical transmission characteristics based on existing system requirements and projected application needs.

Historically, Riser cable transmission performance has been similar to Outside Plant requirements. Optionally, Category 3 performance may be chosen, and must be clearly marked. This Standard covers the minimum transmission performance requirements for the following classes of cable:

Class A: Intended for basic voice, text and data transmission with transmission characteristics specified to support T1 carrier transmission. These cables are referred to as ARxM, where "x" designates the conductor size; T for 26 AWG, M for 24 AWG and A for 22 AWG.