ANSI/ICEA S-110-717-2019

Standard for Optical Fiber Drop Cable

Approved as an American National Standard

ANSI Approval Date: September 26, 2019

ICEA S-110-717-2019
Third Edition

Standard for Optical Fiber Drop Cable

Published by

Insulated Cable Engineers Association, Inc.

www.icea.net

Approved March 5, 2019 by
Insulated Cable Engineers Association, Inc.

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FOREWORD

(This Foreword is not part of this Standard.)

This Standard provides information on specifying optical fiber cables for use as drop cables in telecommunications applications.

The first edition of this Standard was approved by ICEA on June 5, 2003, and adopted by the Telecommunications Industry Association (TIA) as ANSI/TIA-472F000. No subsequent editions were adopted by TIA. The second edition was approved by ICEA on September 13, 2012. It was approved by The American National Standards Institute (ANSI) on March 13, 2013. This third edition was approved by ICEA on March 9, 2019. It was approved by The American National Standards Institute (ANSI) on September 26, 2019. The members of the ICEA Communications Cable Division Working Group who participated in the third edition of this Standard were:

Mike Kinard, Chairman and Editor

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This issue replaces the previous issue of ICEA S-110-717-2013, *Standard for Optical Fiber Drop Cable*. Major changes in this revision include the following:

- Revision of the scope statement to better define the relationship of this drop cable standard to the FTTX and MDU applications of ICEA 730.
- Updated text on hazardous substances requirements.
- Addition of OM5 multimode fiber.
- Updated text and a new table explaining bend insensitive single-mode fiber.
- Addition of 200 micron fiber.
- Addition of descriptive text on easily-strippable semi-tight buffer.
- Jacket thickness specification has been changed from specified numbers to performance requirements.
- OIT is now required for polyolefin (PE or PP) jacket materials and LSZH jacket materials using polyolefin base resins.
- Some IEC test methods are stated as acceptable alternatives:
  - jacket print test
  - ribbon separability test.
- The temperature precision for testing has been changed to ± 3 ºC from ± 2.

- Partially bonded ribbons have been accommodated in the ribbon requirements.
- The cable impact test has been revised to harmonize with current ICEA and international practice.
- Tensile requirements for self-supporting cable are stated.

This Standard contains five annexes. Annex B is normative and becomes part of this Standard when required by the customer. Annexes A, C, D, and E are informative and are not considered 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.

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OPTICAL FIBER DROP CABLE

PART 1

INTRODUCTION

1.1 Scope

1.1.1 General

This Standard covers optical fiber communications cables intended for use in outdoor and indoor/outdoor optical fiber drop applications. Materials, construction, and performance requirements are included in this Standard, together with applicable test procedures.

Optical fiber communications cables within the scope of flame-retardant compact and rugged drop cables for MDU and FTTX applications, as defined by ICEA S-115-730, may include specific types of drop cables. For these types of drop cables, the requirements of S-730 supersede the requirements of this Standard, except by agreement between manufacturer and user.

Refer to other published ICEA cable product standards for information for optical fiber cable requirements for other applications:

- S-104-696 for optical fiber communications cables intended for use in other combined indoor/outdoor applications
- S-87-640 for optical fiber communications cables intended for use in other outdoor applications
- S-83-596 for optical fiber communications cables intended only for indoor use
- S-112-718 for optical fiber cable for placement in sewers
- S-115-730 for optical fiber cable for multiple-dwelling units and other FTTX applications
- S-119-741 for fiber to the antenna cables
- S-120-742 for distributed antenna system cables
- S-122-744 for microduct cables

1.1.2 Application Space

Products covered by this Standard are intended for operation under conditions normally encountered in the last portion of all-optical networks. This space exists