STANDARD FOR

OPTICAL FIBER CABLE
FOR PLACEMENT IN SEWER ENVIRONMENTS

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FOREWORD

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.

The Secretary can only accept questions of interpretation of ICEA Standards in writing at Headquarters at the address below, and the reply shall be provided in writing. Suggestions for improvements in this Standard are welcome. Questions and suggestions shall be sent to:

Secretary
Insulated Cable Engineers Association, Inc.
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United States of America

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PART 1

INTRODUCTION

1.1 SCOPE

1.1.1 General Overview

This Standard covers optical fiber communications cables intended for installation in underground sewers, specifically storm and sanitary sewers. Materials, construction, and performance requirements are included in this Standard, together with applicable test procedures. Additional applications-based considerations are discussed as well.

Refer to ICEA S-87-640 for optical fiber communications cables intended for general outside plant use, ICEA S-110-717 for optical fiber cables intended for aerial, duct, and buried outdoor and indoor/outdoor drop applications, and ICEA S-104-696 for optical fiber communications cables intended for indoor/outdoor use.

1.1.2 Applications Space

Products covered by this Standard are intended for use in metropolitan, urban, and suburban communications networks via use of underground infrastructures, in the last portion of all-optical networks, such as storm and sanitary sewers. These products convey communications signals (voice, video, and data) in metropolitan network rings and serve as point-to-point connections to the subscriber's premises via sewer laterals, in the last portion of the optical network.

These products are intended for use in sewer lines, using man-entry and non-man entry techniques. Such installations are intended to have no adverse effect on the efficiency of the sewer system. These cables are generally placed manually in pre-installed trays or conduits or may be secured to the sewer pipe wall by means of hooks, adhesive beds, sewer pipe liners, or may be tensioned intermittently, in order to maintain the cable and/or conduit out of the flow of the effluent.

The successful application of optical fiber cables in sewer systems requires that all identified maintenance to or rehabilitation of the sewer pipes be conducted