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Optical fibre cables -
Part 1-102: Generic specification - Basic optical cable test procedures - Mechanical tests methods - Abrasion, method E2

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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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IEC 60794-1-102 has been prepared by subcommittee 86A: *Fibres and cables*, of IEC technical committee 86: *Fibre optics*. It is an International Standard.

This first edition of IEC 60794-1-102 cancels and replaces Method E2 of the first edition of IEC 60794-1-21 published in 2015.

This edition includes the following significant technical changes with respect to the previous edition:

a) addition of sample surface cleaning requirements;
b) addition of the number of tests to be performed for method E2B;
c) addition of details to be reported.

The text of this International Standard is based on the following documents:

Draft	Report on voting
86A/2708/FDIS	86A/2728/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 60794 series, published under the general title *Optical fibre cables*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,
– withdrawn, or
– revised.

INTRODUCTION

This document contains method E2 of IEC 60794-1-21:2015 and IEC 60794-1-21:2015/AMD1:2020, which will be withdrawn. The system for optical fibre test methods has been restructured and renumbered. The mechanical test methods contained in IEC 60794-1-21:2015 and IEC 60794-1-21:2020/AMD1:2020 will now be individually numbered in the IEC 60794-1-1xx series. Each test method is now considered to be an individual document rather than part of a multi-test method compendium. Full cross-reference details are given in IEC 60794-1-2.

1 Scope

This part of IEC 60794 specifies the test procedures used to establish uniform requirements on abrasion resistance for optical fibre cables.

This document applies to optical fibre cables for use with telecommunication equipment and devices employing similar techniques, and to cables having a combination of both optical fibres and electrical conductors.

Method E2A evaluates the ability of the sheath to resist abrasion; method E2B evaluates the ability of cable markings (include text or graphic markers, and continuous coloured lines on cable) to resist abrasion.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60794-1-2, *Optical fibre cables - Part 1-2: Generic specification - Basic optical cable test procedures - General guidance*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

– IEC Electropedia: available at https://www.electropedia.org/
– ISO Online browsing platform: available at https://www.iso.org/obp

4 General requirements

IEC 60794-1-2 is the reference guide to test methods of all types. It shall be considered for general requirements and definitions.

5 Object

The purpose of these tests is to determine either the ability of an optical fibre cable sheath to resist abrasion (method E2A) or the ability of the sheath marking to resist abrasion (method E2B).

6 Sample

The sample shall be of a length sufficient to carry out the specified test. A typical length is 750 mm. The surface of the sample shall be cleaned with soft wet towel and without applying extra force, and dried naturally before the tests.