



BSI Standards Publication

Optical fibre cables

Part 1-219: Generic specification — Basic optical cable test procedures — Material compatibility test, method F19

National foreword

This British Standard is the UK implementation of EN IEC 60794-1-219:2022. It is identical to IEC 60794-1-219:2021.

The UK participation in its preparation was entrusted to Technical Committee GEL/86/1, Optical fibres and cables.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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EUROPEAN STANDARD

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English Version

Optical fibre cables - Part 1-219: Generic specification - Basic
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F19
(IEC 60794-1-219:2021)

Câbles à fibres optiques - Partie 1-219 : Spécification
générique - Procédures fondamentales d'essais des câbles
optiques - Essai de compatibilité des matériaux, méthode
F19
(IEC 60794-1-219:2021)

Lichtwellenleiterkabel - Teil 1-219: Fachgrundspezifikation -
Grundlegende Prüfverfahren für Lichtwellenleiterkabel -
Werkstoffverträglichkeitsprüfung, Verfahren F19
(IEC 60794-1-219:2021)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 86A/2138/FDIS, future edition 1 of IEC 60794-1-219, prepared by SC 86A “Fibres and cables” of IEC/TC 86 “Fibre optics” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60794-1-219:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-09-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-12-27

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Endorsement notice

The text of the International Standard IEC 60794-1-219:2021 was approved by CENELEC as a European Standard without any modification.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

**Part 1-219: Generic specification – Basic optical cable
test procedures – Material compatibility test, method F19**

FOREWORD

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IEC 60794-1-219 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

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

Draft	Report on voting
86A/2138/FDIS	86A/2143/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/standardsdev/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,
- replaced by a revised edition, or
- amended.

OPTICAL FIBRE CABLES –

Part 1-219: Generic specification – Basic optical cable test procedures – Material compatibility test, method F19

1 Scope

This part of IEC 60794 applies to optical fibre cables for use with telecommunication equipment and devices employing similar techniques, as well as hybrid telecommunication cables having a combination of both optical fibres and electrical conductors.

The object of this document is to define test procedures to be used in establishing uniform requirements for the material compatibility performance of cables, cable components, and cable subassemblies.

Compatibility of materials within a cable has the potential to involve a range of material pairs. However, experience has shown that the most pertinent evaluations are of the cable filling and flooding materials' interactions with other materials in the cable.

NOTE Throughout the document the wording “optical cable” can also include optical fibre units, microduct fibre units, etc.

See IEC 60794-1-2 for general requirements and definitions, as well as for a reference guide to test methods of all types.

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*

IEC 60794-1-23, *Optical fibre cables – Part 1-23: Generic specification – Basic optical cable test procedures – Cable element test methods*

IEC 60811-501, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 501: Mechanical tests – Tests for determining the mechanical properties of insulating and sheathing compounds*

IEC 61196-1-101, *Coaxial communication cables – Part 1-101: Electrical test methods – Test for conductor d.c. resistance of cable*

IEC 61196-1-102, *Coaxial communication cables – Part 1-102: Electrical test methods – Test for insulation resistance of cable dielectric*

IEC 61196-1-105, *Coaxial communication cables – Part 1-105: Electrical test methods – Test for withstand voltage of cable dielectric*