



SLOVENSKI STANDARD
oSIST prEN 3745-510:2024
01-april-2024

Aeronavtika - Optična vlakna in kabli za uporabo v zračnih plovilih - Preskusne metode - 510. del: Upogibni preskus

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 510: Bending test

Luft- und Raumfahrt - Faseroptische Leitungen für Luftfahrzeuge - Prüfverfahren - Teil 510: Biegetest

Série aérospatiale - Fibres et câbles optiques à usage aéronautique - Méthodes d'essais - Partie 510: Essai de courbure

Ta slovenski standard je istoveten z: prEN 3745-510

[oSIST prEN 3745-510:2024](https://standards.iteh.com/catalog/standards/sist/24/42/3745-510/2024)

ICS:

33.180.10	(Optična) vlakna in kabli	Fibres and cables
49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 3745-510

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ICS 49.060

Will supersede EN 3745-510:2017

English Version

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 510: Bending test

Série aérospatiale - Fibres et câbles optiques à usage
aéronautique - Méthodes d'essais - Partie 510 : Essai
de courbure

Luft- und Raumfahrt - Faseroptische Leitungen für
Luftfahrzeuge - Prüfverfahren - Teil 510: Biegetest

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (prEN 3745-510:2024) has been prepared by ASD-STAN.

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 3745-510:2017.

prEN 3745-510:2024 includes the following significant technical changes with respect to EN 3745-510:2017:

- EN 3745-510 (P3), 05/2017 — General editorial improvements for clarity and coherence. Revision of subclause 4.3 to add the number of loops around the mandrel, as specified in the Product Specification.

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prEN 3745-510:2024 (E)

1 Scope

This document specifies a method of determining the attenuation variation of an optical cable during mechanical bending under load at the maximum and minimum operating temperatures.

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.

EN 2591-100,¹ *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General*

EN 3745-201, *Aerospace series — Fibres and cables, optical, aircraft use — Test methods — Part 201: Visual examination*

EN 3745-301, *Aerospace series — Fibres and cables, optical, aircraft use — Test methods — Part 301: Attenuation*

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:

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

4 Preparation of specimens

4.1 General

The specimens shall be prepared according to the product standard.

If not yet at standard test conditions, the specimens shall be subjected to standard test conditions and stabilized at these conditions for 24 h as defined in EN 2591-100.

4.2 Method A

Unless specified in the technical specification, the following details shall be stated:

- the number and length of specimen(s);
- the mass M to be applied to ensure contact between the cable and the mandrel;
- the diameter D of the mandrel;
- the number of turns N ;
- the maximum permissible variation of attenuation induced after N turns (according to EN 3745-301);

¹ Published as ASD-STAN Standard at the date of publication of this document by ASD-STAN, <https://www.asd-stan.org/>.