



**SLOVENSKI STANDARD
SIST EN 3745-205:2004**

01-maj-2004

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 205: Cable longitudinal dimensional stability

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 205: Cable longitudinal dimensional stability

Luft - und Raumfahrt - Faseroptische Leitungen für Luftfahrzeuge - Prüfverfahren - Teil 205: Kabelmaßhaltigkeit in Längsrichtung

Série aérospatiale - Fibres et câbles optiques a usage aéronautique - Méthodes d'essais - Partie 205: Stabilité longitudinale dimensionnelle du câble

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Ta slovenski standard je istoveten z: EN 3745-205:2002

ICS:

49.060 Štejni sistemski inženiring in oprema za letalstvo
Aerospace electric equipment and systems

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3745-205

June 2002

ICS 49.060

English version

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 205: Cable longitudinal dimensional stability

Série aérospatiale - Fibres et câbles optiques à usage
aéronautique - Méthodes d'essais - Partie 205: Stabilité
longitudinale dimensionnelle du câble

Luft - und Raumfahrt - Faseroptische Leitungen für
Luftfahrzeuge - Prüfverfahren - Teil 205:
Kabelmaßhaltigkeit in Längsrichtung

This European Standard was approved by CEN on 1 March 2002.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN 3745-205:2002 (E)**Foreword**

This document (EN 3745-205:2002) has been prepared by the European Association of Aerospace Manufacturers (AECMA).

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

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2002, and conflicting national standards shall be withdrawn at the latest by December 2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies a method to determine the longitudinal dimensional stability of the outer sheath/jacket (if present) and secondary coating or buffer of a fibre optic cable or fibre.

It shall be used together with EN 3745-100.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 3745-100 Aerospace series – Fibres and cables, optical, aircraft use – Test methods – Part 100: General ¹⁾

EN 3745-402 Aerospace series – Fibres and cables, optical, aircraft use – Test methods – Part 402: Temperature cycling ²⁾

3 Preparation of specimens

3.1 Specimen lengths to be tested shall be $(5 \pm 0,1)$ m. Unless otherwise specified in the product standard, the outer sheath (and strength members if present) shall be removed using a specific tool to expose approximately 40 mm of clad (or clad and coated/buffered) fibre at both ends. Any coatings shall then be removed to reveal approximately 20 mm of bare fibre as follows:

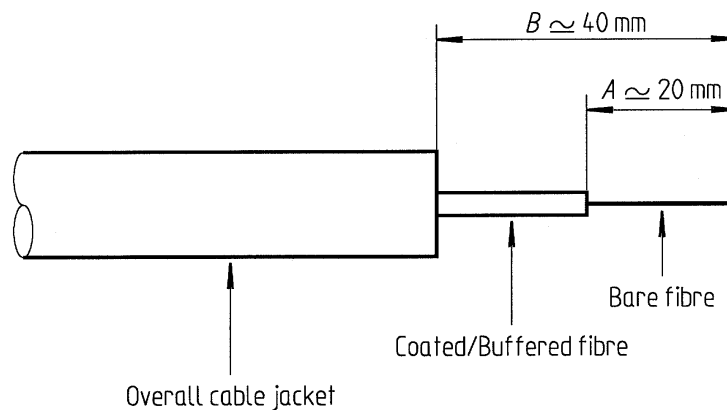


Figure 1

Measurements shall be taken to determine the length of exposed fibre (dimension A) and the distance of the jacket from the fibre end (dimension B). These lengths shall be measured to an accuracy of $\pm 0,1$ mm at both ends. The points of measurement on the circumference of the jackets (and/or buffers) shall be marked using any suitable method. These measurements shall be repeated 15 min after the stripping procedure, and the difference between these measurements and those taken previously, shall be recorded.

1) In preparation at the date of publication of this standard

2) Published as AECMA Prestandard at the date of publication of this standard

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3.2 The following details shall be specified if not already included in the product standard:

- number of samples to be tested;
- type of stripping tool(s) used;
- maximum permitted change in length for dimensions A and B;
- see EN 3745-402.

4 Apparatus

Suitable length measuring apparatus

See EN 3745-402.

5 Method**5.1 Procedure**

Unless otherwise specified in the technical specification the specimen(s) shall be subjected to temperature cycling test as defined in EN 3745-402.

Multiple cycles may be specified. At the end of the cycles, the sample shall be removed and the exposed fibre lengths A and B measured as before.

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5.2 Final measurements and requirements

The change in dimensions A and B shall not exceed the maximum values specified.

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