



**SLOVENSKI STANDARD
SIST EN 3745-509:2004**

01-maj-2004

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 509: Kink test

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 509: Kink test

Luft- und Raumfahrt - Faseroptische Leitungen für Luftfahrzeuge - Prüfverfahren - Teil 509: Knickfestigkeit

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Ta slovenski standard je istoveten z: EN 3745-509:2002

ICS:

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

SIST EN 3745-509:2004

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3745-509

June 2002

ICS 49.060

English version

**Aerospace series - Fibres and cables, optical, aircraft use - Test
methods - Part 509: Kink test**

Série aérospatiale - Fibres et câbles optiques à usage
aéronautique - Méthodes d'essais - Partie 509: Sensibilité à
la pliure

Luft- und Raumfahrt - Laseroptische Leitungen für
Luftfahrzeuge - Prüfverfahren - Teil 509: Knickfestigkeit

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 3745-509:2002 (E)**Foreword**

This document (EN 3745-509:2002) 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 of testing the resistance of an optical cable to the kink test, for aerospace applications.

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 2591-100 Aerospace series – Elements of electrical and optical connection – Test methods – Part 100: General ¹⁾

EN 3745-100 Aerospace series – Fibres and cables, optical, aircraft use – Test methods – Part 100: General ²⁾

3 Preparation of specimens

3.1 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 3745-100.

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3.2 A specimen length of about 10 times the minimum bending radius of the cable shall be used for the test.

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

- loop minimum diameter value.

4 Apparatus

None

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

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

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5 Method

5.1 Test sequence

The specimen shall be held in both hands.

Make a loop ① as shown in figure 1 (keep the specimen in its original plane).

Reduce the loop diameter to the specified minimum value by pulling slowly on the two ends ②. The forces at the bottom of the loop shall be applied in the same plane.

If kink of the cable jacket occurs during the test, note the diameter value.

5.2 Final measurements and requirements

No kink ③, as shown in figure 1, shall occur at a diameter \geq loop minimum diameter value.

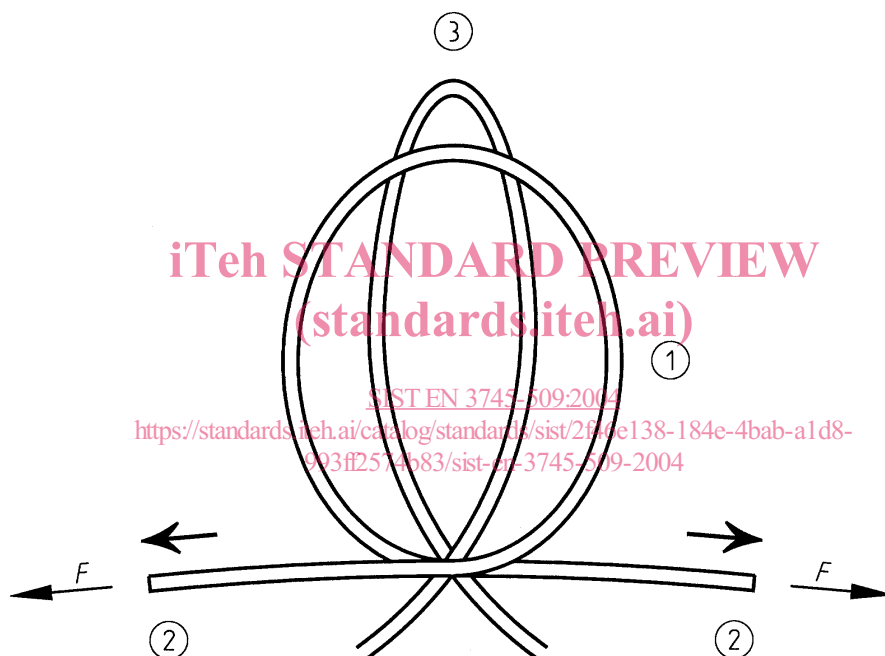


Figure 1