SLOVENSKI STANDARD
SIST EN 2591-612:2004

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Aerospace series - Elements of electrical and optical connection - Test methods - Part 612: Optical elements - Effectiveness of cable attachment - Cable axial compression

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Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 611: Optische Elemente - Wirksamkeit der Leitungsbefestigung - Verdrehung

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 612 : Organes optiques - Efficacité de l'attache du câble - Compression axiale du câble

Ta slovenski standard je istoveten z: **EN 2591-612:2001**

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Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 612: Optische Elemente - Wirksamkeit der Leitungsbefestigung - Axialer Druck

This European Standard was approved by CEN on 4 June 2001.

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.

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

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Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries 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of an identical text or by endorsement, at the latest by May 2002, and conflicting national standards shall be withdrawn at the latest by May 2002.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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies a method of checking the effectiveness of cable attachment in the axial compression mode for optical connection elements (including permanent connections) and fibre optic couplers.

It shall be used together with EN 2591-100.

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 2591-100	Aerospace series – Elements of electrical and optical connection – Test methods – Part 100: General [1)]
EN 2591-601	Aerospace series – Elements of electrical and optical connection – Test methods – Part 601: Optical elements – Insertion loss
EN 2591-602	Aerospace series – Elements of electrical and optical connection – Test methods – Part 602: Optical elements – Variation of attenuation and optical discontinuity
EN 2591-6101	Aerospace series – Elements of electrical and optical connection – Test methods – Part 6101: Optical elements – Visual examination

3 Preparation of specimens

3.1 Specimens shall be fitted with normal accessories and terminated in accordance with 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.

3.2 Unless otherwise indicated in the technical specification, the following details shall be specified:

- load to be applied;
- speed of operation;
- maximum permissible variation of attenuation;
- maximum value of insertion loss;
- type and length of cable/fibre.

4 Apparatus

See EN 2591-602 plus:

- a test set-up fitted with a holding device capable of gripping the cable or cable bundle at distance L of three times the cable or cable bundle diameter from the rigid retention device and a suitable gauge for measuring the compression force between the cable and the optical connection element.

A typical arrangement is shown in figure 1.

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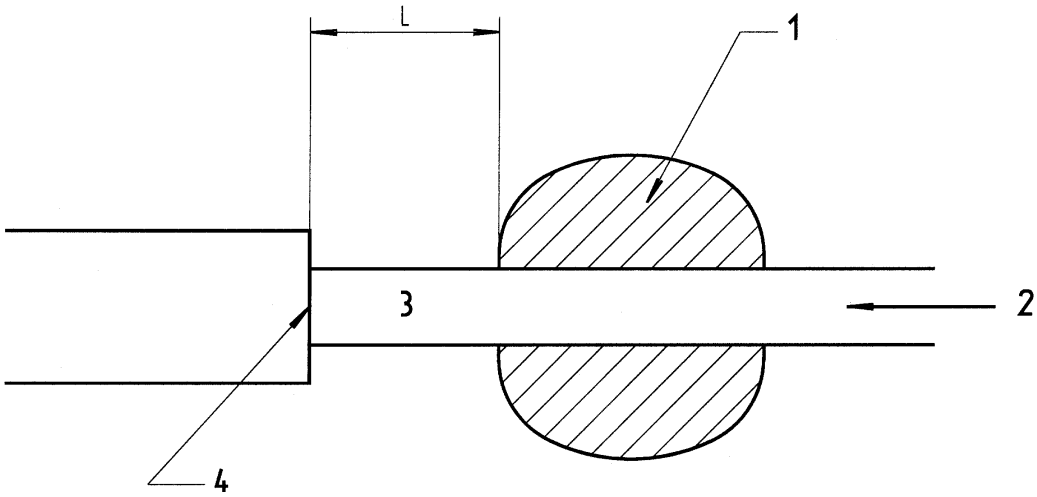
1) Published as AECMA Prestandard at the date of publication of this standard



Key

1 Holding device
2 Load
3 Cable
4 Rigid retention device

Figure 1

5 Method

5.1 The axial compression test is applied to the cable or cable bundle according to table 1.

Table 1

Diameter of cable or cable bundle *d* mm	**Compression force** N
$0 < d \leq 3$	10
$3 < d \leq 6$	20
$6 < d \leq 10$	50
$10 < d$	100

The force is applied for two minutes.

The variation of attenuation (EN 2591-602 – Method A) shall be monitored throughout the test.

NOTE Caution shall be taken not to damage the cable.

5.2 Final measurements and requirements

– EN 2591-6101 – Visual examination
– EN 2591-601 – Insertion loss