

**Aerospace series – Fibres and cables,
optical, aircraft use – Test methods –
Part 512: Flexure endurance**

ICS 49.060

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English Version

Aerospace series - Fibres and cables, optical, aircraft use - Test methods - Part 512: Flexure endurance

Série aérospatiale - Fibres et câbles optiques à usage
aéronautique - Méthodes d'essais - Partie 512 : Résistance
à la flexion

Luft- und Raumfahrt - Faseroptische Leitungen für
Luftfahrzeuge - Prüfverfahren - Teil 512: Biegefestigkeit

This European Standard was approved by CEN on 19 September 2005.

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Foreword

This European Standard (EN 3745-512:2005) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-STAN).

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of an identical text or by endorsement, at the latest by May 2006, and conflicting national standards shall be withdrawn at the latest by May 2006.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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

EN 3745-512:2005 (E)**1 Scope**

This standard specifies a method for testing flexure endurance of the cable when it is subjected to alternating flexing.

2 Normative references

The following referenced documents are indispensable for the application 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, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General*

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

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 Preparation of specimens

3.1 The specimen shall be prepared as specified in EN 3745-100.

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

- type of specimen;
- number of specimens if different of 3;
- length if not 1 m;
- mass M value if not 300 g;
- diameter D of mandrels if not 20 times the cable diameter;
- static bend radius;
- maximum permissible Variation of attenuation;
- number of cycles.

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