



SLOVENSKI STANDARD SIST EN 2591-420:2009

01-april-2009

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Aerospace series - Elements of electrical and optical connection - Test methods - Part 420: Mechanical strength of rear accessories

Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 420: Mechanische Festigkeit der rückseitigen Zubehörteile

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 420 : Tenue mécanique des accessoires arrière

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connection électrique
mécanique des accessoires arrière
0aa8-c529-44d7-a186-c31375d823d3/sist-en-2591-420-2009

Ta slovenski standard je istoveten z: EN 2591-420:2006

ICS:

49.060 Š^cp\ æš Ą^•[|b\ æ Aerospace electric
^|\ dã} æ] !^ { æš Ąã c^ { ã equipment and systems

SIST EN 2591-420:2009 en,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 2591-420

July 2006

ICS 49.060

Supersedes EN 2591-420:2001

English Version

**Aerospace series - Elements of electrical and optical connection
- Test methods - Part 420: Mechanical strength of rear
accessories**

Série aérospatiale - Organes de connexion électrique et
optique - Méthodes d'essais - Partie 420 : Tenue
mécanique des accessoires arrière

Luft- und Raumfahrt - Elektrische und optische
Verbindungselemente - Prüfverfahren - Teil 420:
Mechanische Festigkeit der rückseitigen Zubehörteile

This European Standard was approved by CEN on 27 April 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

This European Standard (EN 2591-420:2006) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-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 ASD, 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 January 2007, and conflicting national standards shall be withdrawn at the latest by January 2007.

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.

This document supersedes EN 2591-420:2001.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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EN 2591-420:2006 (E)

1 Scope

This standard specifies a method of determining the mechanical strength of rear accessories used on elements of electrical and optical connection subjected to bending, tensile and torsional forces.

It shall be used together with EN 2591-100.

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 2591-101, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 101: Visual examination.*

3 Preparation of specimens

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

- mounting and locking of specimens; (standards.iteh.ai)
- for phase A, bending moment; [SIST EN 2591-420:2009](https://standards.iteh.ai/catalog/standards/sist/45c90aa8-c529-44d7-a186-c31375d823d3/sist-en-2591-420-2009)
- for phase B, tensile force; <https://standards.iteh.ai/catalog/standards/sist/45c90aa8-c529-44d7-a186-c31375d823d3/sist-en-2591-420-2009>
- for phase C, torsional moment;
- for phase D, tightening torque;
- requirements.

4 Apparatus

- Equipment for applying and measuring the bending, tensile, torsional forces and torques.
- Fixture simulating the rear part of a connector.

5 Method

The mounted specimens shall be subjected to the following test sequence unless otherwise stated.

Dummy shells may be used.

a) Phase A: bending test

With the specimens placed horizontally in the test fixture, bending moments shall be applied successively to the end of the accessory, see Figures 1, 2 and 3.

The forces F_1 and F_2 and F_3 shall be increased at a rate not exceeding 20 N/s until the specified value is reached and maintained for 1 min.

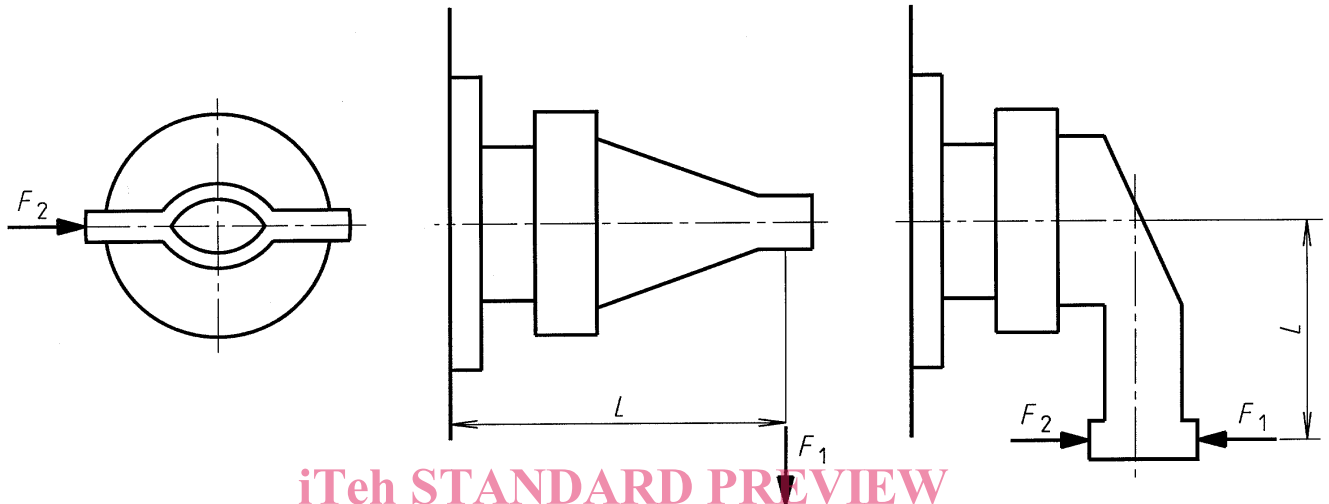


Figure 1 — Bending moment
(straight accessory)

Figure 2 — Bending moment
(90° accessory)

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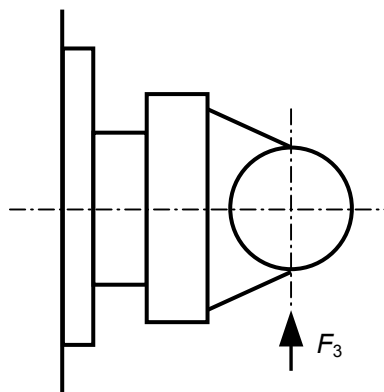


Figure 3 — Bending moment
(90° accessory)

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b) Phase B: tensile test

With the specimens placed horizontally in the test fixture, tensile force F shall be applied to the end of the accessory, see Figure 4 or Figure 5.

It shall be increased at a rate not exceeding 20 N/s until the specified value is reached and maintained for 1 min.

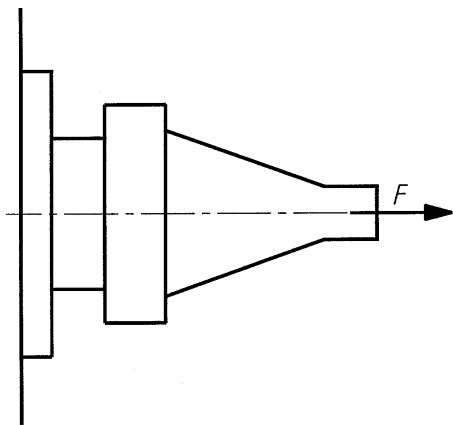


Figure 4 — Tensile force
(straight accessory)

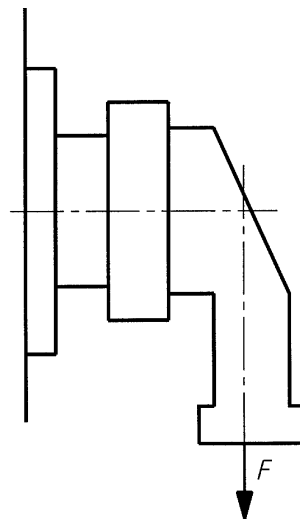


Figure 5 — Tensile force
(90° accessory)

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c) Phase C: torsion test <https://standards.iteh.ai/catalog/standards/sist/45c90aa8-c529-44d7-a186-c31375d823d3/sist-en-2591-420-2009>

With the specimens placed horizontally in the test fixture, the torsional moment C shall be applied to the end of the accessory, see Figure 6 or Figure 7.

This torsional moment shall be increased at a rate not exceeding 0,1 Nm/s until the specified value is reached and maintained for one minute.

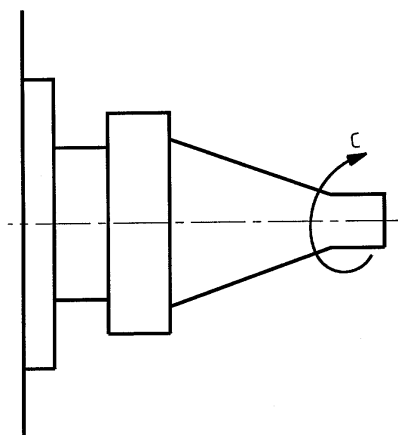


Figure 6 — Torsional moment
(straight accessory)

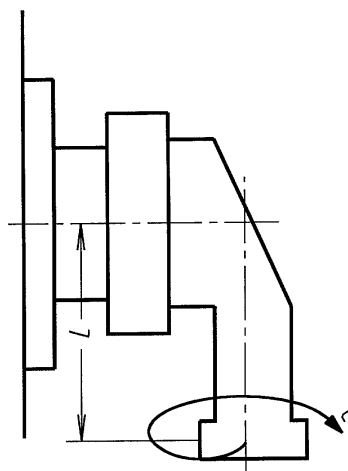


Figure 7 — Torsional moment
(90° accessory)