



**SLOVENSKI STANDARD
SIST EN 3475-503:2004**

01-maj-2004

Aerospace series - Cables, electrical, aircraft use - Test methods - Part 503: Scrape abrasion

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Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrt, Verwendung - Prüfverfahren - Teil 503: Abriebfestigkeit

Série aérospatiale - Câbles électriques a usage aéronautique - Méthodes d'essai - Partie 503: Abrasion par raclage

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Ta slovenski standard je istoveten z: EN 3475-503:2002

ICS:

49.060 Štejni inštrumenti in oprema za električno in elektronsko opremo in sisteme
Aerospace electric equipment and systems

SIST EN 3475-503:2004

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3475-503

January 2002

ICS 49.060

English version

**Aerospace series - Cables, electrical, aircraft use - Test
methods - Part 503: Scrape abrasion**

Série aérospatiale - Câbles électriques à usage
aéronautique - Méthodes d'essai - Partie 503: Abrasion par
raclage

Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrt,
Verwendung - Prüfverfahren - Teil 503: Abriebfestigkeit

This European Standard was approved by CEN on 6 August 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.

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

Foreword

This document (EN 3475-503:2002) 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 July 2002, and conflicting national standards shall be withdrawn at the latest by July 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 measuring the resistance to abrasion by scraping.

It shall be used together with EN 3475-100.

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 3475-100 Aerospace series – Cables, electrical, aircraft use – Test methods – Part 100: General

3 Preparation of specimens

Specimens 750 mm long shall be taken from finished cables or insulated conductors.

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4 Apparatus

The apparatus (see figure 1) shall consist of a device designed to wear the surface of the insulation parallel to the cable axis, over a length equal to the travel (10 ± 1) mm at a frequency of (55 ± 5) cycles per minute.

5 Method

5.1 This test shall be performed at ambient temperature and at the maximum operating temperature of the cable.

5.2 This test device shall be provided with a counter and an automatic stop, controlled by a current leakage detector between the moveable blade and the conductor.

5.3 Procedure

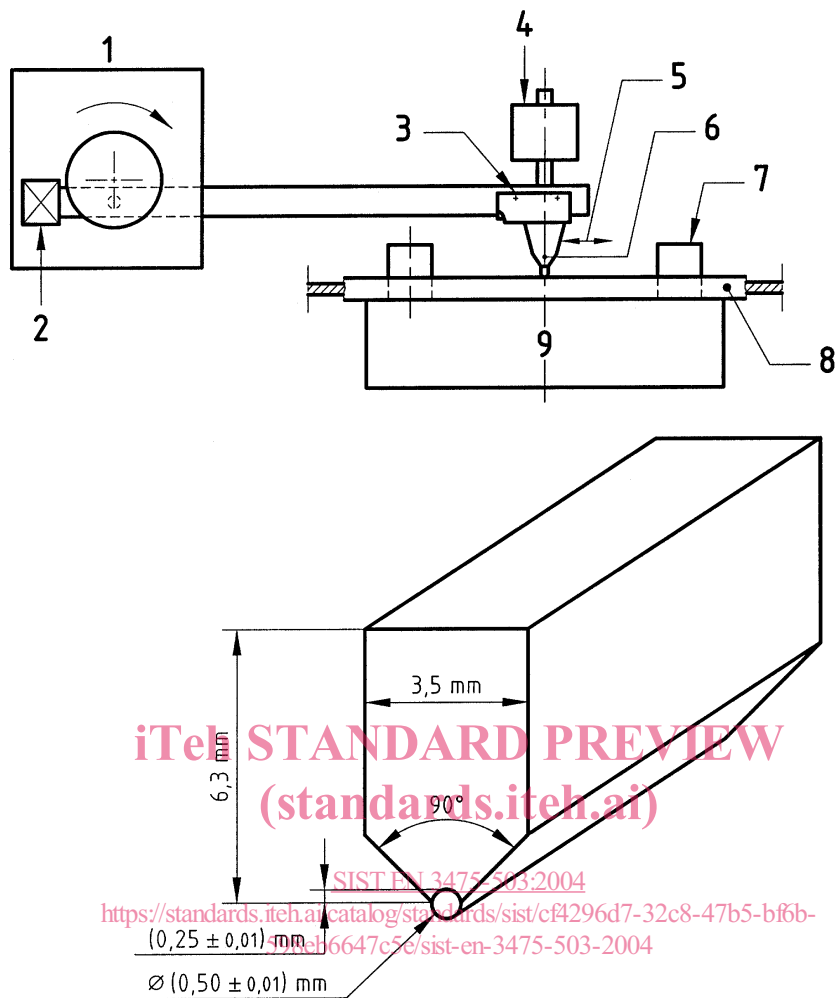
The cable specimen is firmly fixed to the support by means of a cable clamp.

The needle holder shall be subjected to a load specified in the product standard. Each specimen shall undergo six tests and be moved 100 mm between each test and turned at an angle of 90° , always in the same direction.

5.4 Requirements

The insulation or the jacket shall resist at least 100 cycles (arithmetic mean), one cycle consisting of a backward and forward movement of the needle.

Scrape abrasion resistance shall be defined as the number of complete cycles required for the needle to completely wear through the insulation or the jacket and to stop the equipment.

**Key**

- 1 Mechanism
- 2 Counter mass
- 3 Electrical insulation
- 4 Mass
- 5 Travel (10 ± 1) mm
- 6 Needle holder
- 7 Cable clamp
- 8 Cable on test
- 9 Anvil (low thermal mass)

Figure 1 – General arrangement