SLOVENSKI STANDARD
SIST EN 3475-501:2009

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SIST EN 3475-501:2004

Aeronavtika - Elektriļ ni kabli za uporabo v zraļ nih plovilih - Preskusne metode - 501. del: Odpornost proti zarezam

Aerospace series - Cables, electrical, aircraft use - Test methods - Part 501: Dynamic cut -through

Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren - Teil 501: Kerbfestigkeit

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essai - Partie 501 : Résistance à la coupure

Ta slovenski standard je istoveten z: **EN 3475-501:2006**

ICS:

49.060	Letalska in vesoljska elektriļ na oprema in sistemi	Aerospace electric equipment and systems

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EUROPEAN STANDARD

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English Version

Aerospace series - Cables, electrical, aircraft use - Test methods - Part 501: Dynamic cut-through

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essai - Partie 501 : Résistance à la coupure

Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren - Teil 501: Kerbfestigkeit

This European Standard was approved by CEN on 20 April 2006.

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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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This European Standard (EN 3475-501:2006) 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of an identical text or by endorsement, at the latest by December 2006, and conflicting national standards shall be withdrawn at the latest by December 2006.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.

This document supersedes EN 3475-501:2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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.

1 Scope

This standard specifies a method of measuring the resistance to cut-through of an insulated conductor or jacket. This test is limited to cables smaller than code 140 (gauge size 6) and insulations with a thickness of 0,38 mm or less.

It shall be used together with EN 3475-100.

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 3475-100, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 100: General.*

3 Preparation of specimens

The test specimen shall be a single 450 mm length of insulated cable. Remove sufficient insulation from one end of the specimen for connection to the detection circuit.

4 Apparatus

A tensile tester (or equivalent apparatus) shall operate in a compression mode and be equipped with a means to record the force necessary to drive the cutting edge through the insulation of a finished cable specimen. The cutting edge shall be positioned across the specimen at 90° to its longitudinal axis and shall have the dimensions shown in Figure 1.

The tester shall also be equipped with a chamber that allows the test to be performed after stabilisation at elevated temperatures, and a low voltage detection circuit shall stop the tester when the edge cuts through the insulation and contacts the conductor.

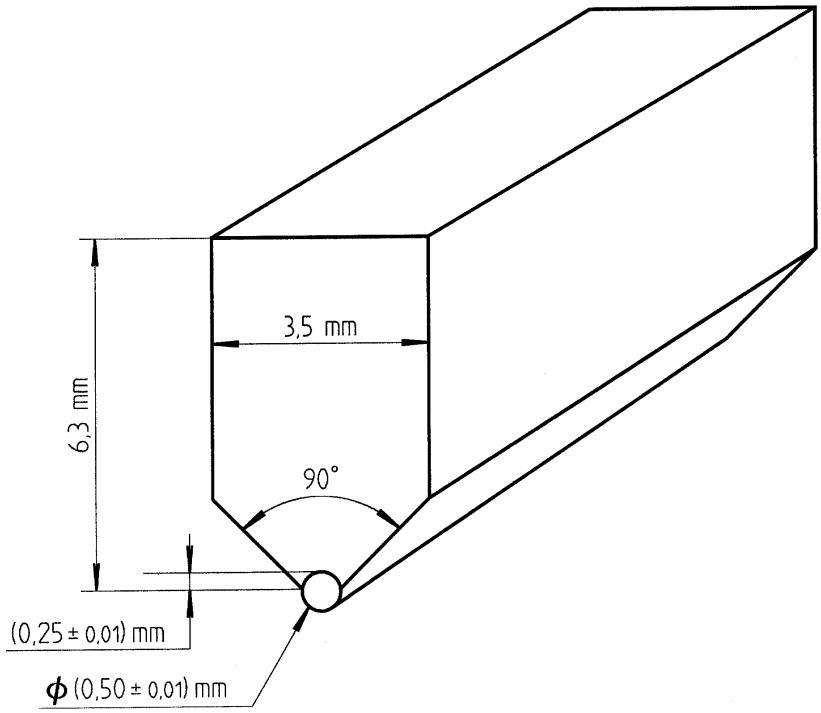

Figure 1 — Needle holder

5 Method

Carry out the test at the temperature specified in the applicable product standard. At elevated temperatures the apparatus must be stabilised prior to each test which may require up to one hour (1 h) depending upon chamber and specimen size. Move the cutting edge through the insulation at a constant rate of loading of (1 ± 0,1) N/s at the specimen until contact with the conductor occurs. Move the specimen longitudinally a minimum of 25 mm and rotate it 90° between each test, keeping the direction of movement and rotation constant. Perform eight individual tests on the specimen. Record the force at cut-through for each test.

6 Requirements

The arithmetic mean value of the eight measured cut-through results shall exceed the value given in the product standard.