

### SLOVENSKI STANDARD SIST EN 3475-404:2004

01-maj-2004

# Aerospace series - Cables, electrical, aircraft use - Test methods - Part 404: Thermal shock

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Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrt, Verwendung - Prüfverfahren - Teil 404: Thermischer Schock STANDARD PREVIEW

Série aérospatiale - Câbles électriques a usage aéronautique - Méthodes d'essai - Partie 404: Chocs thermiques <u>SIST EN 3475-404:2004</u>

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Ta slovenski standard je istoveten z: EN 3475-404-2004 EN 3475-404-2002

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#### SIST EN 3475-404:2004

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

### EN 3475-404

January 2002

ICS 49.060

English version

### Aerospace series - Cables, electrical, aircraft use - Test methods - Part 404: Thermal shock

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essai - Partie 404: Chocs thermiques Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrt, Verwendung - Prüfverfahren - Teil 404: Thermischer Schock

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

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Ref. No. EN 3475-404:2002 E

#### Foreword

This document (EN 3475-404:2002) 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.

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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 evaluating the performance of a cable after exposure to a thermal shock. 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 a specimen**

#### 3.1 Insulated conductor

A specimen 1,5 m long shall be carefully prepared by stripping a length of 25 mm at each end. For the purpose of this test all the layers of material covering the conductor shall be removed.

The insulation shall be cut perpendicular to the cable axis with a razor blade or equivalent tool to facilitate the stripping operation.

The length of conductor exposed at each end shall be measured.

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#### 3.2 Cable jacket

A specimen of cable 1,5 m long, shall be prepared by carefully removing 25 mm of jacket from each end of the cable. A razor blade or equivalent, held perpendicular to the axis of the cable, shall be used to cut the jacket for the removal operation. The length of exposed cores at each end of the specimen shall be measured.

#### 4 Apparatus

A support for the coiled cable and an oven shall be required for this test.

#### 5 Method

#### 5.1 **Procedure** (applicable for insulated conductors and jacketed cables)

The specimen shall be wound in a spiral of minimum diameter 0,3 m then arranged on a support for handling during the test.

The specimen shall be placed in an oven for 30 min at the temperature stated in the product standard.

Then the specimen shall be removed from the oven within 2 min and stored for 30 min at  $(-55 \pm 2)$  °C. After this cycle the specimen shall be brought back to ambient temperature, for a minimum of 30 min.

This cycle and the measurements are repeated three times making a total of four cycles. Remove the specimen from the support and straighten it.

#### 5.2 Requirements

On completion of each cycle, the following measurements shall be made: distance between the insulation and the end of the conductor (for insulated conductor) or between the jacket and the core(s) shall be measured at each end.

Any variation from the original measurement greater than the value stated in the product standard shall be considered a failure.

Any flaring of any layer shall also constitute a failure.

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