SLOVENSKI STANDARD

SIST EN 3475-513:2006

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Aeronavtika ï Električ ni kabli za uporabo v zrač nih plovilih ï Preskusne metode ï 513. del: Odpornost proti deformaciji (namestitev s plastič nimi vezicami)

Aerospace series - Cables, electrical, aircraft use - Test methods - Part 513: Deformation resistance (Installation with plastic cable ties)

Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren - Teil 513: Verformungsbeständigkeit

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essais - Partie 513 : Déformation mécanique (Installation avec collier de frettage)

Ta slovenski standard je istoveten z: **EN 3475-513:2005**

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Aerospace series - Cables, electrical, aircraft use - Test methods - Part 513: Deformation resistance (Installation with plastic cable ties)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This European Standard (EN 3475-513:2005) 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of an identical text or by endorsement, at the latest by April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.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.

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1 Scope

This product standard defines a test method to evaluate the performance of a coaxial cable after the installation of plastic cable ties.

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.*

EN 3475-805, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 805: Characteristic impedance.*

EN 4056-003, *Aerospace series — Cable ties for harnesses — Part 003: Plastic cable ties, operating temperatures – 65 C° to 105 °C and – 65 °C to 150 °C — Product standard.* [1)]

3 Preparation of specimens

3.1 Required parts / samples

12 plastic cable ties, type EN 4056-003 Type 1, size code S.

Test is to perform on four specimens made up of two cable pieces.

3.2 Conditioning

Cut eight pieces of the test cable to a length of (500 ± 20) mm.

Use three plastic cable ties per specimen to bundle two cable pieces.

Place the first cable tie approximately 100 mm from the end which was connected to the TDR (to measure the initial impedance).

Place the second cable tie at a distance of (100 ± 5) mm to the first, the third cable tie in a distance of 100 mm to the second.

Use the application tool to fix all cable ties, the force which has to be applied will be defined in the product standard.

3.3 Initial measurement

Measure the impedance of each specimen (on both pieces of cable) in accordance with EN 3475-805, method B. Plot the results.

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1) Published as AECMA Prestandard at the date of publication of this standard.

4 Test method

4.1 Specimens shall be prepared as defined in 3.2.

4.2 First test

To be performed on two specimens.

Measure the impedance of each cable again in accordance with EN 3475-805, method B. Plot the results.

Compare the impedance before and after the cable ties have been applied to cable bundle.

4.3 Second test

To be performed on two specimens.

Store the cable bundle for eight hours in an air convection oven at a temperature of (130 ± 5) °C.

Cool the cable bundle for four hours to six hours to room temperature.

Measure the impedance of each cable again in accordance with EN 3475-805, method B. Plot the results.

Compare the impedance before and after the cable ties have been applied to cable bundle.

5 Requirement

The impedance shall not deviate more than five per cent from the originally recorded values.