SLOVENSKI STANDARD
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Aerospace series - Elements of electrical and optical connection - Test methods - Part 323: Thermal shock

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Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 323: Thermischer Schock

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 323: Chocs thermiques

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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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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
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries 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of an identical text or by endorsement, at the latest by December 1998, and conflicting national standards shall be withdrawn at the latest by December 1998.

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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies a method of verifying the ability of hermetic elements of connection to sustain thermal shock.

It shall be used together with EN 2591.

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 2591	Aerospace series - Elements of electrical and optical connection - Test methods - General
EN 2591-101	Aerospace series - Elements of electrical and optical connection - Test methods - Part 101: Visual examination
EN 2591-206	Aerospace series - Elements of electrical and optical connection - Test methods - Part 206: Measurement of insulation resistance
EN 2591-322	Aerospace series - Elements of electrical and optical connection - Test methods - Part 322: Hermeticity [1]

3 Preparation of specimens

3.1 Specimens shall be prepared according to the technical specification.

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

- specimens wired or unwired;
- type of cable and definition of specimen wiring (if applicable);
- initial measurements (if applicable);
- final measurements (if applicable);
- method according to EN 2591-206 and insulation resistance value.

4 Apparatus

Two containers, one with cold water, the other with hot water, are necessary for this test. The location of these two containers shall be such that the transfer of specimens from one to the other can be carried out in a time less than 5 s (t_2).

The cold water container shall be capable of maintaining the water temperature between 1 °C and 4 °C.

The hot water container shall be capable of maintaining the water temperature between 90 °C and 100 °C.

The volume of the water shall be approximately 0,04 m^3.

No dimension of the containers shall be less than 250 mm.

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

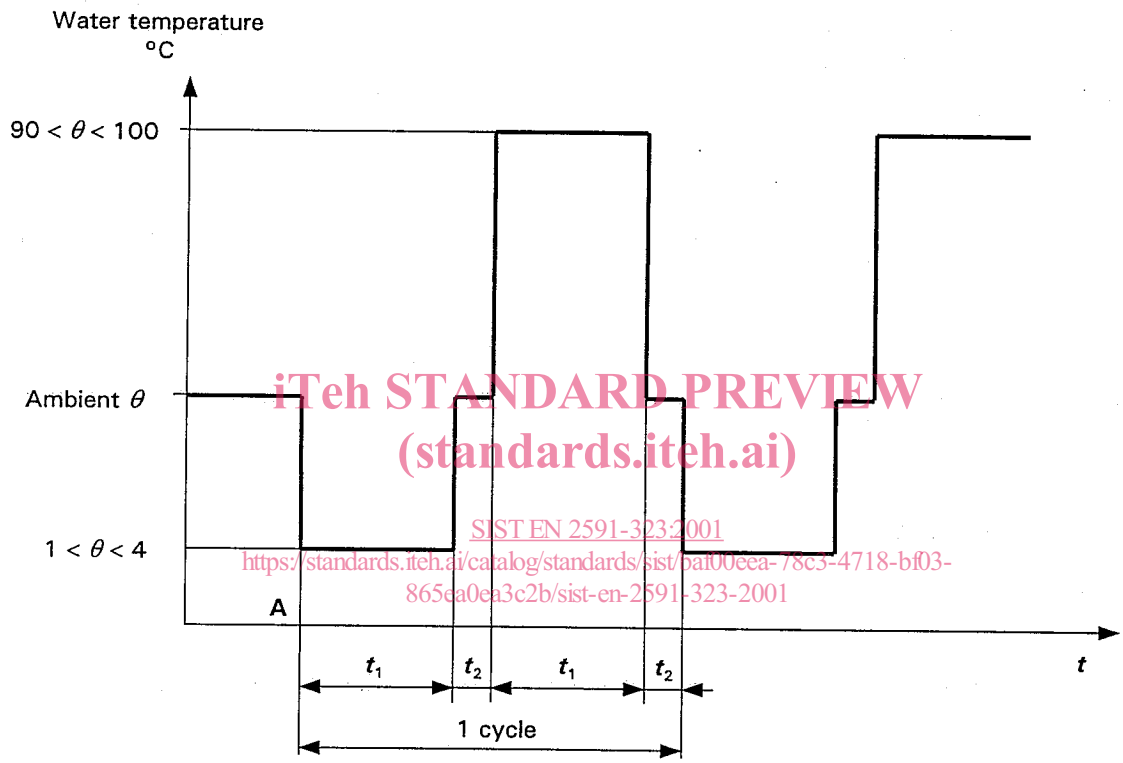
5 Method

5.1 Initial measurements (if applicable)

They shall be carried out as specified.

5.2 Procedure

The specimens, at ambient temperature, shall be immersed in the centre of the containers in accordance with the cycle defined in figure 1.



A: start of first cycle

Figure 1

The immersion time (t_1) at each temperature shall be (10 ± 1) min.

The number of cycles shall be 10.

5.3 Recovery

At the end of the last cycle, the specimens shall be drained and then dried at a temperature of (70 ± 5) °C for 15 min.

5.4 Final measurements (if applicable)

The specimens shall be subjected to the following test sequence:

- EN 2591-322;
- EN 2591-206;
- EN 2591-101.