SLOVENSKI STANDARD
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Aerospace series - Elements of electrical and optical connection - Test methods - Part 313: Artificial rain

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Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 313: Künstlicher Regen

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 313: Pluie artificielle

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ICS:

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

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Aerospace series - Elements of electrical and optical connection - Test methods - Part 313: Artificial rain

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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

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Ref. No. EN 2591-313:1997 E

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of an identical text or by endorsement, at the latest by April 1998, and conflicting national standards shall be withdrawn at the latest by April 1998.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 (artificial rain) of assessing the ability of elements of connection to withstand the effects of rain or dripping water.

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 2591-207	Aerospace series - Elements of electrical and optical connection - Test methods - Part 207: Voltage proof test

3 Preparation of specimens

3.1 Specimens shall be prepared according to the technical specification.

Unwired cavities shall be fitted with filler plugs.

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

- specimens mated or unmated and fitted with protective covers (if applicable);
- mounting method, type of cable and definition of specimen wiring;
- initial measurements and requirements (if applicable);
- method according to EN 2591-206 and insulation resistance value;
- method according to EN 2591-207 and voltage value;
- final measurements and requirements (if applicable).

4 Apparatus

The surface of the lower part of the drop generator (see figure 1) shall be larger than that of the specimen.

The specimen outline shall be larger than its support.

The drop generator shall have a flow rate as uniform as possible over the entire surface to be watered and shall produce a rain corresponding to a depth of water in the reservoir which reduces by (4 ± 1) mm per minute.

NOTE: The water flow rate may be regulated, e.g. with sand and gravel layers separated by mesh and blotting paper.

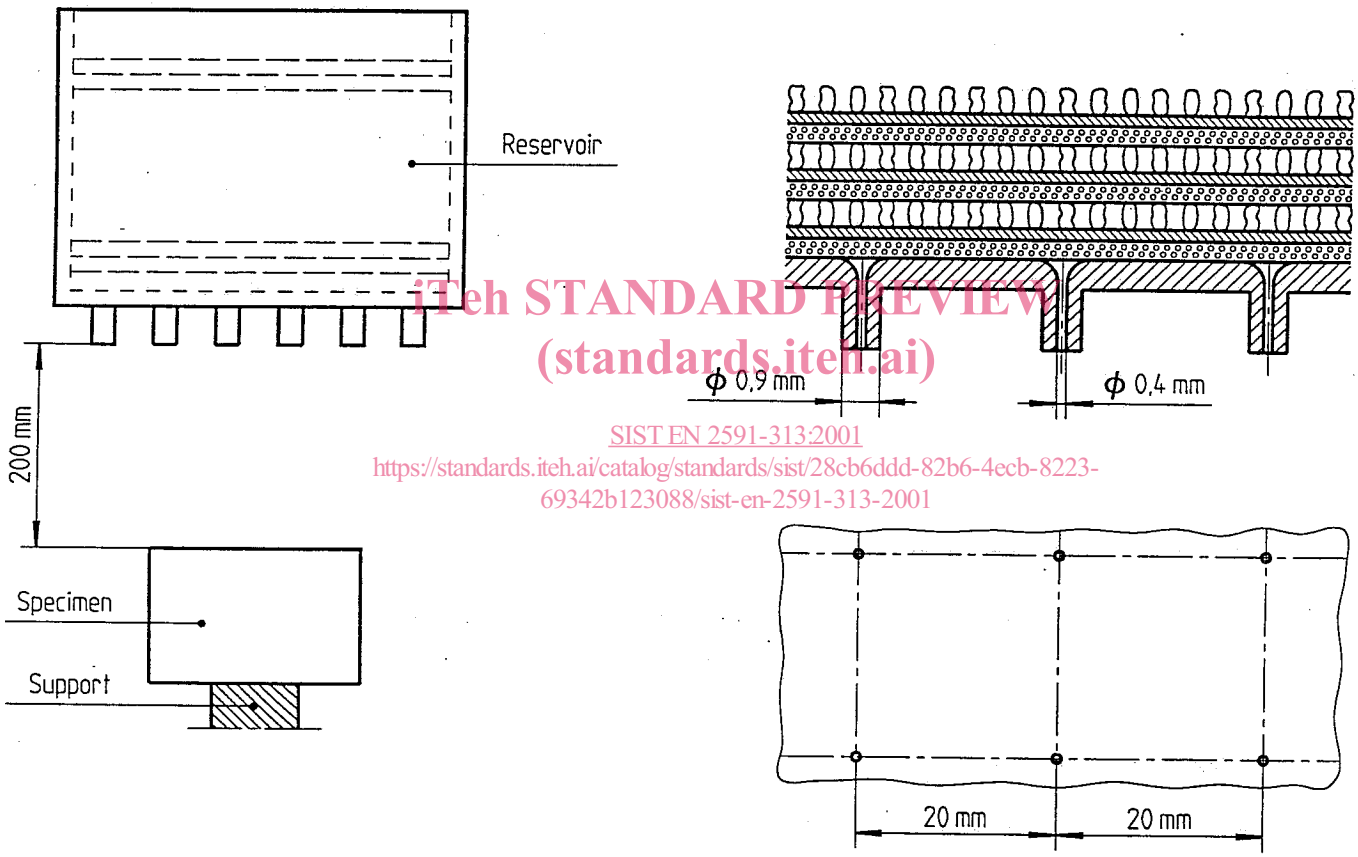

Figure 1 - Drop generator

5 Method

5.1 Initial measurements and requirements (if applicable)

They shall be carried out in accordance with EN 2591-206.

5.2 Procedure

The specimens shall be exposed to a vertical rain along the three main axes, in both directions (total of six) for 10 min in each direction.

5.3 Final measurements and requirements (if applicable)

The specimens shall not be unmated nor the protective covers removed prior to the following test sequence:

- EN 2591-206;
- EN 2591-207.

With the connectors unmated, carry out the following test:

- EN 2591-101: visual examination to verify any water ingress.