
Aerospace series - Elements of electrical and optical connection - Test methods - Part 604: Optical elements - Cleaning capability of optical face

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Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Prüfverfahren - Teil 604: Optische Elemente - Reinigungsfähigkeit der optischen Fläche

Série aérospatiale - Organes de connexion électrique et optique - Méthodes d'essais - Partie 604 : Organes optiques - Aptitude au nettoyage de la face optique

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Ta slovenski standard je istoveten z: EN 2591-604:2001

ICS:

49.060 Štejni in optični oprema za letalstvo in vesolje
Aerospace electric equipment and systems

SIST EN 2591-604:2004**en**

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EUROPEAN STANDARD

EN 2591-604

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2001

ICS 49.060

English version

**Aerospace series - Elements of electrical and optical connection
- Test methods - Part 604: Optical elements - Cleaning capability
of optical face**

Série aérospatiale - Organes de connexion électrique et
optique - Méthodes d'essais - Partie 604: Organes optiques
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Luft- und Raumfahrt - Elektrische und optische
Verbindungselemente - Prüfverfahren - Teil 604: Optische
Elemente - Reinigungsfähigkeit der optischen Fläche

This European Standard was approved by CEN on 4 June 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, 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

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 May 2002, and conflicting national standards shall be withdrawn at the latest by May 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, 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 assessing the cleaning capability of the optical faces of unmated connections when they have been exposed to contaminants.

It shall be used together with EN 2591-100.

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 2591-100	Aerospace series – Elements of electrical and optical connection – Test methods – Part 100: General ¹⁾
EN 2591-315	Aerospace series – Elements of electrical and optical connection – Test methods – Part 315: Fluid resistance
EN 2591-601	Aerospace series – Elements of electrical and optical connection – Test methods – Part 601: Optical elements – Insertion loss

3 Preparation of specimens

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

- maximum value of insertion loss; [SIST EN 2591-604:2004](#)
- cleaning products and cleaning method; [standards/sist/58d4b003-2aba-4a9c-a2de-77155d5e706c/sist-en-2591-604-2004](#)
- type and length of cable/fibre;
- type of fuels and lubricants selected from EN 2591-315.

4 Apparatus

It shall comprise:

- a Light Launch System (LLS) as defined in EN 2591-100;
- a Light Detector System (LDS) as defined in EN 2591-100;
- vessels appropriate to contain the contaminants and standardized cleaning agents.

5 Method

5.1 The following contaminants at ambient temperature shall be used:

- demineralized water;
- fuels;
- liquid lubricants;
- natural silica: grains of 2,5 µm to 50 µm and grains of 50 µm to 150 µm (50/50 by volume);
- mixture of water and silica (50/50 by volume);
- liquid lubricants and silica (50/50 by volume).

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

EN 2591-604:2001 (E)

5.2 The following operations shall be performed separately for each of the contaminants defined above:

- measure initial insertion loss (EN 2591-601);
- immerse the optical face of the connection elements in each contaminant;
- clean the connection elements according to EN 2591-100;
- mate the optical connection elements.

5.3 Final measurement and requirements

- EN 2591-601 – Insertion loss

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