

**SLOVENSKI
STANDARD**

SIST EN 61300-2-34:1999

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Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-34: Tests - Resistance to solvents and contaminating fluids (IEC 61300-2-34:1995)

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English version

**Fibre optic interconnecting devices and passive components
Basic test and measurement procedures
Part 2-34: Tests - Resistance to solvents and contaminating fluids
(IEC 61300-2-34:1995)**

Dispositifs d'interconnexion et
composants passifs à fibres optiques
Méthodes fondamentales d'essais et
de mesures
Partie 2-34: Essais de résistance aux
solvants et aux fluides contaminants
(CEI 61300-2-34:1995)

Lichtwellenleiter - Verbindungselemente
und passive Bauteile - Grundlegende
Prüf- und Meßverfahren
Teil 2-34: Prüfungen: Widerstand gegen
Reinigungsmittel und verschmutzende
Flüssigkeiten
(IEC 61300-2-34:1995)

[SIST EN 61300-2-34:1999](https://standards.iteh.ai/catalog/standards/sist/3c600157-76bd-4337-a235-5725148811b4/sist-en-61300-2-34-1995)

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This European Standard was approved by CENELEC on 1997-07-01. CENELEC 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 Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 61300-2-34:1995, prepared by SC 86B, Fibre optic interconnecting devices and passive components, of IEC TC 86, Fibre optics, was submitted to the formal vote and was approved by CENELEC as EN 61300-2-34 on 1997-07-01 without any modification.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1998-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1998-06-01

Endorsement notice

The text of the International Standard IEC 61300-2-34:1995 was approved by CENELEC as a European Standard without any modification.

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
1300-2-34

Première édition
First edition
1995-06

**Dispositifs d'interconnexion et composants
passifs à fibres optiques –
Méthodes fondamentales d'essais
et de mesures –**

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Partie 2-34:

**(Essais – Résistance à)
et aux fluides contaminants**

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**Fibre optic interconnecting devices
and passive components –
Basic test and measurement procedures –**

Part 2-34:

**Tests – Resistance to solvents
and contaminating fluids**

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES
AND PASSIVE COMPONENTS –
BASIC TEST AND MEASUREMENT PROCEDURES –**

**Part 2-34: Tests – Resistance to solvents
and contaminating fluids**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

International Standard IEC 1300-2-34 has been prepared by sub-committee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

DIS	Report on voting
86B/558/DIS	86B/636/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

IEC 1300 consists of the following parts, under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*:

- Part 1: General and guidance
- Part 2: Tests
- Part 3: Examinations and measurements

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-34: Tests – Resistance to solvents and contaminating fluids

1 General

1.1 *Scope and object*

The purpose of this part of IEC 1300 is to establish the ability of a fibre optic device to resist degradation when exposed to specific solvents or contaminating fluids with which the component may come into contact during its service life.

1.2 *General description*

The specimen is immersed in the fluid for a specified period of time. A separate specimen shall be used with each fluid.

WARNING – Intended users of this procedure are cautioned that tests of this nature may involve the use of certain hazardous materials, operations and equipment. In particular, some of the fluids that may be used are flammable or may constitute health hazards, or both. Test temperatures should be at least 10 °C below the flashpoint of any fluid being used. Open flame heat sources should not be used with any organic solvents. Test personnel should consult the relevant material's safety data sheets when necessary.

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2 Apparatus

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The apparatus consists of the following elements.

2.1 *Containers*

A borosilicate glass or stainless steel vessel of suitable volume for each test fluid shall be used. Vessels shall be of sufficient size and capacity to permit the specimen to be appropriately immersed in the selected fluid without violating other physical constraints (e.g. minimum cable bend radius).

2.2 *Fluids*

Prepared immersion fluids.

2.3 *Heat source*

A suitable heat source capable of achieving and maintaining the specified temperatures within ± 2 °C of the required setting.

2.4 *Oven*

A suitable oven to dry the specimen.

3 Procedure

The preparation of the specimen shall be in accordance with the detail specification. Unless otherwise specified, the specimen shall be subjected to the test in a non-operational mode.

3.1 Pre-condition the specimen and the fluid as specified in the detail specification.

3.2 For each specified fluid, prepare a vessel with sufficient fluid such that the specimen can be adequately immersed.

3.3 Immerse the specimen for 18 h while maintaining the fluid temperature.

NOTE – In the case of volatile fluids, it may be necessary to add additional amounts of fluid (heated to the test temperature) during the test in order to keep the specimen immersed.

3.4 At the end of the 18 h period, remove the specimen and wipe off surplus fluid.

3.5 Place the specimen in an oven and dry for 2 h at 70 °C.

3.6 Upon completion of the test, the specimen(s) shall be examined and all necessary observations recorded as specified in the detail specification. Careful attention shall be given to swelling of materials, loss of adhesive bonding between bonded surfaces, corrosion of materials, softening of materials, degradation of optical characteristics, etc.

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4 Severity

The severity consists of the combination of the fluid and the fluid temperature. The severity shall be specified in the detail specification.

The following preferred severities are non-mandatory severities which may be specified for this procedure.