



SLOVENSKI STANDARD
SIST EN ISO 2811-3:2002

01-september-2002

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Paints and varnishes - Determination of density - Part 3: Oscillation method (ISO 2811-3:1997)

Beschichtungsstoffe - Bestimmung der Dichte - Teil 3: Schwingungsverfahren (ISO 2811-3:1997)

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Peintures et vernis - Détermination de la masse volumique - Partie 3: Méthode par oscillation (ISO 2811-3:1997)

[SIST EN ISO 2811-3:2002](https://standards.itih.ai/catalog/standards/sist/676ee500-ccc9-4b46-8bd9-ba258875206b/sist-en-iso-2811-3-2002)

Ta slovenski standard je istoveten z: EN ISO 2811-3:2001

ICS:

87.040

Barve in laki

Paints and varnishes

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 2811-3

August 2001

ICS 87.040

English version

**Paints and varnishes - Determination of density - Part 3:
Oscillation method (ISO 2811-3:1997)**

Peintures et vernis - Détermination de la masse volumique
- Partie 3: Méthode par oscillation (ISO 2811-3:1997)

Beschichtungsstoffe - Bestimmung der Dichte - Teil 3:
Schwingungsverfahren (ISO 2811-3:1997)

This European Standard was approved by CEN on 29 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

EN ISO 2811-3:2001 (E)

CORRECTED 2001-09-26

Foreword

The text of the International Standard from Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 139 "Paints and varnishes", the secretariat of which is held by DIN.

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 February 2002, and conflicting national standards shall be withdrawn at the latest by February 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.

Endorsement notice

The text of the International Standard ISO 2811-3:1997 has been approved by CEN as a European Standard without any modification.

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NOTE: Normative references to International Standards are listed in annex ZA (normative).

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Annex ZA (normative)**Normative references to international publications
with their relevant European publications**

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 (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 1513	1992	Paints and varnishes - Examination and preparation of samples for testing	EN ISO 1513	1994
ISO 3696	1987	Water for analytical laboratory use - Specification and test methods	EN ISO 3696	1995

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INTERNATIONAL
STANDARD

ISO
2811-3

First edition
1997-12-15

**Paints and varnishes — Determination of
density —**

**Part 3:
Oscillation method**

*Peintures et vernis — Détermination de la masse volumique —
Partie 3: Méthode par oscillation*
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ba23b873206b/sist-en-iso-2811-3-2002](https://standards.iteh.ai/catalog/standards/sist/676ee500-eee9-4b46-8bd9-ba23b873206b/sist-en-iso-2811-3-2002)



Reference number
ISO 2811-3:1997(E)

ISO 2811-3:1997(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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International Standard ISO 2811-3 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

SIST EN ISO 2811-3:2002

Together with the other parts of ISO 2811, this part of ISO 2811 cancels and replaces ISO 2811:1974, which has been technically revised.

ISO 2811 consists of the following parts, under the general title *Paints and varnishes — Determination of density*:

- Part 1: *Pyknometer method*
- Part 2: *Immersed body (plummet) method*
- Part 3: *Oscillation method*
- Part 4: *Pressure cup method*

Annex A forms an integral part of this part of ISO 2811. Annexes B and C are for information only.

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Paints and varnishes — Determination of density —

Part 3: Oscillation method

1 Scope

This part of ISO 2811 is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products.

It specifies a method for determining the density of paints, varnishes and related products using an oscillator.

The method is suitable for all materials, including paste-like coatings. If a pressure-resistant type of apparatus is used, the method is also applicable to aerosols.

2 Normative references

[SIST EN ISO 2811-3:2002](https://standards.iteh.ai/catalog/standards/sist/676ee500-eee9-4b46-8bd9-ba23681206b/sist-en-iso-2811-3-2002)

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 2811. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 2811 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1512:1991, *Paints and varnishes — Sampling of products in liquid or paste form.*

ISO 1513:1992, *Paints and varnishes — Examination and preparation of samples for testing.*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods.*

3 Definition

For the purposes of this part of ISO 2811, the following definition applies.

3.1 density, ρ : The mass divided by the volume of a portion of a material, expressed in grams per millilitre (g/ml).

4 Principle

A glass or stainless-steel U-tube is filled with the product under test. The tube is clamped at both ends and then subjected to oscillation. The resonance frequency of the filled tube will vary with the mass contained in the tube, i.e. the density of the product under test.