



SLOVENSKI STANDARD SIST EN ISO 11890-2:2002

01-september-2002

6 Ufj Y]b`U_]!`8 c`c Yj Ub^Y\ `Udb] \ `cf[Ubg_] \ `gdc`b!`&`XY. `A YfcXUg`d`]bg_c
_fca Utc[fUz]c`fIGC`%% - \$!& &\$\$\$L

Paints and varnishes - Determination of volatile organic compound (VOC) content - Part 2: Gas-chromatographic method (ISO 11890-2:2000)

Beschichtungsstoffe - Bestimmung des Gehaltes an flüchtigen organischen Verbindungen (VOC-Gehalt) - Teil 2: Gaschromatographisches Verfahren (ISO 11890-2:2000)

(standards.iteh.ai)

Peintures et vernis - Détermination de la teneur en composés organiques volatils (COV) - Partie 2: Méthode par chromatographie en phase gazeuse (ISO 11890-2:2000)

Ta slovenski standard je istoveten z: EN ISO 11890-2:2001

ICS:

87.040 Barve in laki Paints and varnishes

SIST EN ISO 11890-2:2002 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 11890-2:2002](#)

<https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 11890-2

August 2001

ICS 87.040

English version

Paints and varnishes - Determination of volatile organic compound (VOC) content - Part 2: Gas-chromatographic method (ISO 11890-2:2000)

Peintures et vernis - Détermination de la teneur en composés organiques volatils (COV) - Partie 2: Méthode par chromatographie en phase gazeuse (ISO 11890-2:2000)

Beschichtungsstoffe - Bestimmung des Gehaltes an flüchtigen organischen Verbindungen (VOC-Gehalt) - Teil 1: Gaschromatographisches Verfahren (ISO 11890-2:2000)

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.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN ISO 11890-2:2001 (E)

CORRECTED 2001-11-07

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 11890-2:2000 has been approved by CEN as a European Standard without any modification.

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

[SIST EN ISO 11890-2:2002](https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002)

<https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002>

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 15528	2000	Paints, varnishes and raw materials for paints and varnishes - Sampling	EN ISO 15528	2000

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 11890-2:2002](https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002)

<https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 11890-2:2002](https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002)

<https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002>

INTERNATIONAL STANDARD

ISO 11890-2

First edition
2000-05-15

Paints and varnishes — Determination of volatile organic compound (VOC) content — Part 2: Gas-chromatographic method

*Peintures et vernis — Détermination de la teneur en composés organiques
volatils (COV) —
Partie 2: Méthode par chromatographie en phase gazeuse*

[SIST EN ISO 11890-2:2002](https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002)

[https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-
e0fe4c09f514/sist-en-iso-11890-2-2002](https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002)



Reference number
ISO 11890-2:2000(E)

© ISO 2000

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 11890-2:2002](https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002)

<https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-e0fe4c09f514/sist-en-iso-11890-2-2002>

© ISO 2000

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 734 10 79
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

Contents

	Page
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Principle	2
5 Required supplementary information	2
6 Apparatus	3
7 Reagents	5
8 Sampling	5
9 Procedure	5
10 Calculation	7
11 Expression of results	9
12 Precision	9
13 Test report	10

Annexes**iTeh STANDARD PREVIEW**

A Required supplementary information (standards.iteh.ai)	11
B Examples of gas-chromatographic conditions	12
B.1 Hot injection of a water-thinnable product <small>SIST EN ISO 11890-2:2002</small>	12
B.2 Cold injection of a water-thinnable product <small>https://standards.iteh.ai/catalog/standards/sist/682a7569-a34a-49c9-a4fb-c01c4c09b114/sist-en-iso-11890-2-2002</small>	12
B.3 Hot injection of a product containing no water	13
B.4 Cold injection of a product containing no water	13

ISO 11890-2:2000(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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.

Attention is drawn to the possibility that some of the elements of this part of ISO 11890 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 11890-2 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 10, *Test methods for binders for paints and varnishes*.

ISO 11890 consists of the following parts, under the general title *Paints and varnishes — Determination of volatile organic compound (VOC) content*:

- Part 1: *Difference method*
- Part 2: *Gas-chromatographic method*

Annex A forms a normative part of this part of ISO 11890. Annex B of this part of ISO 11890 is for information only.

ITEH STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 11890-2:2002](https://standards.iteh.ai/SIST/EN/ISO/11890-2:2002)

<https://standards.iteh.ai/SIST/EN/ISO/11890-2:2002>
e0fc4c09f514/sist-en-iso-11890-2-2002

Paints and varnishes — Determination of volatile organic compound (VOC) content —

Part 2: Gas-chromatographic method

1 Scope

This part of ISO 11890 is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products.

It specifies a method for the determination of the volatile organic compound (VOC) content of paints, varnishes and their raw materials. This part shall be used where the expected VOC content is greater than 0,1 % by mass and less than about 15 % by mass. When the VOC content is greater than about 15 % by mass, the less complicated method given in ISO 11890-1 may be used.

This method assumes that the volatile matter is either water or organic. However, other volatile inorganic compounds may be present and may need to be quantified by another suitable method and allowed for in the calculations.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 11890. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 11890 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 760:1978, *Determination of water — Karl Fischer method (General method)*.

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

ISO 2811-1:1997, *Paints and varnishes — Determination of density — Part 1: Pyknometer method*.

ISO 2811-2:1997, *Paints and varnishes — Determination of density — Part 2: Immersed body (plummet) method*.

ISO 2811-3:1997, *Paints and varnishes — Determination of density — Part 3: Oscillation method*.

ISO 2811-4:1997, *Paints and varnishes — Determination of density — Part 4: Pressure cup method*.

ISO 4618-1:1998, *Paints and varnishes — Terms and definitions for coating materials — Part 1: General terms*.

ISO 5725-1:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 1: General principles and definitions*.

ISO 5725-2:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*.

ISO 11890-1:2000, *Paints and varnishes — Determination of volatile organic compound (VOC) content — Part 1: Difference method*.