



NSAI
Standards

Irish Standard
I.S. EN ISO 11890-2:2013

Paints and varnishes - Determination of volatile organic compound (VOC) content - Part 2: Gas-chromatographic method (ISO 11890-2:2013)

I.S. EN ISO 11890-2:2013

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English Version

Paints and varnishes - Determination of volatile organic compound (VOC) content - Part 2: Gas-chromatographic method (ISO 11890-2:2013)

Peintures et vernis - Détermination de la teneur en composés organiques volatils (COV) - Partie 2: Méthode par chromatographie en phase gazeuse (ISO 11890-2:2013)

Beschichtungsstoffe - Bestimmung des Gehaltes an flüchtigen organischen Verbindungen (VOC-Gehalt) - Teil 2: Gaschromatographisches Verfahren (ISO 11890-2:2013)

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Foreword

This document (EN ISO 11890-2:2013) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with 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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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INTERNATIONAL
STANDARD

ISO
11890-2

Third edition
2013-03-15

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



Reference number
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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 2.

The main task of technical committees is to prepare International Standards. 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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ISO 11890-2 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*.

This third edition cancels and replaces the second edition (ISO 11890-2:2006), of which it constitutes a minor revision to correct the numerator of the fraction in Equation (6) in [10.5](#).

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*

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 is preferred if 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 can be present and might need to be quantified by another suitable method and allowed for in the calculations.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO 1513, *Paints and varnishes — Examination and preparation of test samples*

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

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

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

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

ISO 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

volatile organic compound

VOC

any organic liquid and/or solid that evaporates spontaneously at the prevailing temperature and pressure of the atmosphere with which it is in contact

Note 1 to entry: As to current usage of the term VOC in the field of coating materials, see volatile organic compound content (VOC content).

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