

<b>STN</b>	<b>Náterové látky</b> <b>Stanovenie obsahu prchavých organických látok (VOC) a/alebo poloprchavých organických látok (SVOC)</b> <b>Časť 2: Metóda plynovej chromatografie (ISO 11890-2: 2020)</b>	<b>STN</b> <b>EN ISO 11890-2</b>  67 3029
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Paints and varnishes - Determination of volatile organic compounds(VOC) and/or semi volatile organic compounds (SVOC) content - Part 2: Gas-chromatographic method (ISO 11890-2:2020)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/20

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EUROPEAN STANDARD

**EN ISO 11890-2**

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English Version

**Paints and varnishes - Determination of volatile organic compounds(VOC) and/or semi volatile organic compounds (SVOC) content - Part 2: Gas-chromatographic method (ISO 11890-2:2020)**

Peintures et vernis - Détermination de la teneur en composés organiques volatils (COV) et/ou composés organiques semi-volatils (COSV) - Partie 2: Méthode par chromatographie en phase gazeuse (ISO 11890-2:2020)

Beschichtungsstoffe - Bestimmung des Gehaltes an flüchtigen organischen Verbindungen (VOC-Gehalt) und des Gehaltes an halbflüchtigen organischen Verbindungen (SVOC-Gehalt) - Teil 2: Gaschromatographisches Verfahren (ISO 11890-2:2020)

This European Standard was approved by CEN on 28 May 2020.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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**EN ISO 11890-2:2020 (E)**

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## **European foreword**

This document (EN ISO 11890-2:2020) 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 January 2021, and conflicting national standards shall be withdrawn at the latest by January 2021.

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

This document supersedes EN ISO 11890-2:2013.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## **Endorsement notice**

The text of ISO 11890-2:2020 has been approved by CEN as EN ISO 11890-2:2020 without any modification.

# INTERNATIONAL STANDARD

# ISO 11890-2

Fourth edition  
2020-06

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## Paints and varnishes — Determination of volatile organic compounds(VOC) and/or semi volatile organic compounds (SVOC) content —

### Part 2: Gas-chromatographic method

*Peintures et vernis — Détermination de la teneur en composés  
organiques volatils (COV) et/ou composés organiques semi-volatils  
(COSV) —*

*Partie 2: Méthode par chromatographie en phase gazeuse*



Reference number  
ISO 11890-2:2020(E)

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 139, *Paints and varnishes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 11890-2:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the scope has been expanded to include the determination of semi volatile organic compounds (SVOC);
- the scope has been expanded to include concentration ranges from 0,01 % to 100 %;
- the specifications for determination of semi-volatile organic compounds have been added.

A list of all parts in the ISO 11890 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

**ISO 11890-2:2020(E)****Introduction**

This document is one of a series of standards dealing with the sampling and testing of coating materials and their raw materials. It specifies a method for the determination of the volatile organic compounds (VOC) content and the semi-volatile organic compounds (SVOC) content of coating materials and their raw materials.

# Paints and varnishes — Determination of volatile organic compounds(VOC) and/or semi volatile organic compounds (SVOC) content —

## Part 2: Gas-chromatographic method

**WARNING** — The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of users of this document to take appropriate measures to ensure the safety and health of personnel prior to the application of the document, and to determine the applicability of any other restrictions for this purpose.

### 1 Scope

This document is applicable for the determination of VOC and SVOC with an expected VOC and/or SVOC content greater than 0,01 % by mass up to 100 % by mass.

The method given in ISO 11890-1 is used when the VOC is greater than 15 % by mass. This document (method ISO 11890-2) applies when the system contains VOC and SVOC as the VOC result of ISO 11890-1 can be influenced by the SVOC. For VOC content smaller than 0,1 %, the head space method described in ISO 17895 is used as an alternative. ISO 11890-1 and ISO 17895 cannot be used for the determination of the SVOC content.

**NOTE 1** Some ingredients of coating materials and their raw materials can decompose during analysis and cause artificial VOC and/or SVOC signals. When determining VOC and/or SVOC for coating materials and their raw materials, these signals are artefacts of the method and are not taken into account (examples are given in [Annex B](#)).

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. The method defined in this document is not applicable for determination of water content.

**NOTE 2** If organic acids or bases and their corresponding salts are present in the coating material or its raw materials, the amount that is quantified by this method might not be accurate due to a change in the acid or base equilibrium.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 (all parts), *Paints and varnishes — Determination of density*

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

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**