International Standard

ISO 17895

Paints and varnishes — Determination of volatile organic compound (VOC) — Gas-chromatographic method with headspace injection for VOC determination

Peintures et vernis — Détermination de la teneur en composés organiques volatils (COV) — Méthode par chromatographie en phase gazeuse avec injection dans l'espace de tête pour la détermination des COV

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Foreword

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This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 16, *Chemical analysis,* 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 second edition cancels and replaces the first edition (ISO 17895:2005), which has been technically revised.

The main changes are as follows:

— the document has been technically revised;

— used methods have been further specified;

— normative references have been updated.

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.

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Paints and varnishes — Determination of volatile organic compound (VOC) — Gas-chromatographic method with headspace injection for VOC determination

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 specifies the sampling and testing of low volatile organic compound (VOC) coating materials and their raw materials. In particular, this document specifies a gas-chromatographic method to quantitatively determine the VOC content (i.e. the content of organic compounds with boiling points up to 250 °C) under standard conditions (101,325 kPa). It is applicable to VOC contents between 0,01 % and 0,1 % by mass.

This document does not apply to the determination of the semi-volatile organic compounds (SVOC) content, which is covered in ISO 11890-2.

This document does not apply to volatile organic and volatile inorganic compounds that cannot be determined by gas chromatography.

The procedure for identifying the appropriate method for the determination of VOC content and the SVOC content of coating materials and their raw materials is described in ISO/TR 5601.

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 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 3696, *Water for analytical laboratory use — Specification and test methods*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

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