International Standard

ISO 16000-11

Second edition
2024-03

Indoor air —

Part 11: Determination of the emission of volatile organic compounds from samples of building products and furnishing — Sampling, storage of samples and preparation of test specimens

Air intérieur —

Partie 11: Dosage de l'émission de composés organiques volatils d'échantillons de produits de construction et d'objets d'équipement — Échantillonnage, conservation des échantillons et préparation des éprouvettes d'essais

Reference number
ISO 16000-11:2024(en)

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Published in Switzerland

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Foreword

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This document was prepared by Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 6, *Indoor air,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 264, *Air quality,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 16000-11:2006), which has been technically revised.

The main changes are as follows:

— detailed descriptions for the preparation of samples of liquid products like paints, varnishes and impregnating primers have been added;

— the wet layer thickness instead of the dry film thickness for preparing liquid samples have been recommended;

— sample preparation instructions have been added to determine the cut edge emissions.

A list of all parts in the ISO 16000 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.

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Introduction

The determination of volatile organic compounds (VOCs) emitted from building products and furnishing using emission test chambers in conjunction with the standardised sampling, storage of samples and preparation of test specimens has objectives such as:

— to provide manufacturers, builders and end users with emission data useful for the evaluation of the impact of building products on the indoor air quality;

— to promote the development of improved products.

Studies of the emission of volatile organic compounds from building products or furnishing in test chambers or cells require proper handling of the product prior to testing and during the testing period.

The method can in principle be used for most building products and furnishings used indoors.

NOTE Depending on the non-homogeneity of the product, it can be necessary to make measurements on different test specimens to determine the specific emission rate.

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Indoor air —

Part 11: Determination of the emission of volatile organic compounds from samples of building products and furnishing — Sampling, storage of samples and preparation of test specimens

1 Scope

This document specifies the sampling procedures, transport conditions, storage and substrate used that can affect emissions of volatile organic compounds for three types of building products or furnishing: solid, liquid and combined. For individual products, the preparation of a test specimen for each type is specified.

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 16000-9:2024, *Indoor air — Part 9: Determination of the emission of volatile organic compounds from building products and furnishing — Emission test chamber method*

ISO 16000-10, *Indoor air — Part 10: Determination of the emission of volatile organic compounds from building products and furnishing — Emission test cell method*

EN 1937, *Test method for hydraulic setting floor smoothing and/or levelling compounds — Standard mixing procedures*

EN 13892-1, *Methods of test for screed materials — Part 1: Sampling, making and curing specimens for test*

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/

3.1
solid product
<building product or furnishing> resilient or rigid product whose properties meet user-specifications directly without a transition phase, e.g. curing or drying

EXAMPLE 1 Examples of resilient products are several insulation products, flexible flooring and wall coverings.

EXAMPLE 2 Examples of rigid products are tiles, parquets, laminated floorings, wall construction products, such as chip- and gypsum boards, wood panels, ceiling materials, acoustic panels, and doors.

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