

Inomhusluft –

Del 11: Bestämning av flyktiga organiska föreningar (VOC) avgivna från byggprodukter och inredning – Provtagning, lagring av prov och beredning av provstycken (ISO 16000-11:2006)

Indoor air –

Part 11: Determination of the emission of volatile organic compounds from building products and furnishing – Sampling, storage of samples and preparation of test specimens (ISO 16000-11:2006)

Europastandarden EN ISO 16000-11:2006 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 16000-11:2006.

I **SS-EN ISO 16000, del 11**, beskrivs hur bygg- och inredningsprodukterna skall hanteras före och under provning i emissionskammare eller emissionscell enligt del 9 resp. del 10 av SS-EN ISO 16000. Tre typer av produkter behandlas: "homogena", flytande och sammansatta material. För dessa typer av produkter beskrivs hur provtagning, transport, förvaring och framställning av provstycken skall ske så att emissionen inte påverkas.

The European Standard EN ISO 16000-11:2006 has the status of a Swedish Standard. This document contains the official English version of EN ISO 16000-11:2006.

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English Version

Indoor air - Part 11: Determination of the emission of volatile
organic compounds from building products and furnishing -
Sampling, storage of samples and preparation of test specimens
(ISO 16000-11:2006)

Air intérieur - Partie 11: Dosage de l'émission de composés
organiques volatils de produits de construction et d'objets
d'équipement - Echantillonnage, conservation des
échantillons et préparation d'échantillons pour essai (ISO
16000-11:2006)

Innenraumlftverunreinigungen - Teil 11: Bestimmung der
Emission von flüchtigen organischen Verbindungen aus
Bauprodukten und Einrichtungsgegenständen -
Probenahme, Lagerung der Proben und Vorbereitung der
Prüfstücke (ISO 16000-11:2006)

This European Standard was approved by CEN on 16 January 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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EN ISO 16000-11:2006 (E)

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Foreword

This document (EN ISO 16000-11:2006) has been prepared by Technical Committee CEN/TC 264 "Air quality", the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 146 "Air quality".

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 August 2006, and conflicting national standards shall be withdrawn at the latest by August 2006.

This document supersedes ENV 13419-3:1999.

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

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Introduction

The determination of volatile organic compounds (VOCs) emitted from building products 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.

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

Indoor air —

Part 11:

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

1 Scope

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

This part of ISO 16000 defines three types of building products or furnishing: solid, liquid and combined. For each type, specifications are given for the sampling procedures, transport conditions, storage, and substrate used that can affect emissions of volatile organic compounds. For individual products, the preparation of a test specimen for each type is prescribed.

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.

2 Normative references

The following referenced documents are indispensable for the application 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.

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

ISO 16000-9, *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 13892-1, *Methods of test for screed materials — Part 1: Sampling, making and curing specimens for test*

ISO 3251:1993, *Paints and varnishes — Determination of non-volatile matter of paints, varnishes and binders for paints and varnishes*

ISO 2811-1, *Paints and varnishes — Determination of density — Part 1: Pyknometer 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 3233, *Paints and varnishes — Determination of percentage volume of non-volatile matter by measuring the density of a dried coating*

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3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 16000-9 and ISO 16000-10, and the following apply.

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 etc.

3.2 liquid product
(building product or furnishing) product whose properties meet the user-specifications after a transition phase, e.g. curing or drying

EXAMPLE Examples of liquid products are paints, varnishes, oils, waxes, levelling compounds, plasters, mortars, concrete, adhesives, sealants, caulks, putties, and surface coatings.

NOTE 1 Liquid products can have a wide range of viscosity and are supplied to the user in containers, such as cans, tubes, bottles, and sacks and are applied on the site.

NOTE 2 Some liquid products need the addition of water before they can be applied.

3.3 combined product
(building product or furnishing) combined product formed on-site by the combination of more than one solid or liquid product

EXAMPLE Examples are glued applications such as floor and wall coverings that are fixed on the site on surfaces using adhesives.

NOTE When liquid products as paints, oils and waxes are spread on an absorbing surface such as wood and gypsum board etc, the systems are considered to be combined.

4 Sampling the product and transport and storage of sample

4.1 Sampling of the product to be tested

Product samples collected at the point of manufacture shall be taken as soon as possible after the normal manufacturing process. Product samples can also be collected from retail stores.

4.2 Sample packaging and transport

Samples shall be thoroughly protected from chemical contamination or any physical exposure, e.g. heat, light and humidity.

For solid products, this can usually be achieved by wrapping each specimen separately in aluminium foil and in a polyethylene bag or alternatively, in aluminised packaging lined with polyethylene or clear polyvinyl fluoride film. Liquid products shall be shipped in unopened cans, tubes, etc.

NOTE Transportation of collected samples can affect the emission characteristics of the product. The possible effects of temperature and humidity are of particular concern.