INTERNATIONAL STANDARD

ISO 16000-28

Second edition
2020-11

Indoor air —

Part 28: Determination of odour emissions from building products using test chambers

Air intérieur —

Partie 28: Détermination des émissions d'odeurs des produits de construction au moyen de chambres d'essai

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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).

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).

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.

This document was prepared by Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 6, *Indoor air*.

This second edition cancels and replaces the first edition (ISO 16000-28:2012), which has been technically revised. The main changes compared to the previous edition are as follows:

— besides acceptability and perceived intensity, the hedonic tone is described as odour characteristic;

— a more detailed description of the comparative scale, including information on set-up, check-up and calibration devices;

— recommendation on panel sizes for the different testing procedures (acceptability, perceived intensity and hedonic tone);

— procedure in case of failing the confidence interval.

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.

Introduction

Odour evaluation is a complementary method to the chemical testing of emissions from building products and materials.

The determination of odour acceptability, intensity and hedonic tone of emissions from building products and materials using test chambers has objectives such as:

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

— to promote the development of improved products.

The method can also be used for furnishings and consumer products. For this purpose, a suitable exposure scenario (according to the reference room defined in EN 16516) needs to be defined.

Indoor air —

Part 28: Determination of odour emissions from building products using test chambers

1 Scope

This document specifies a laboratory test method using test chambers defined in ISO 16000-9 and further specified in EN 16516 and evaluation procedures for the determination of odours emitted from building products and materials.

Sampling, transport and storage of materials under test, as well as preparation of test specimens are described in ISO 16000-11 and further specified in EN 16516.

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

EN 16516, *Construction products: Assessment of release of dangerous substances — Determination of emissions into indoor air*

3 Terms and definitions

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

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

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

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

3.1
acceptability
assessment of an odour emission into indoor air which can be ascertained according to a scale ranging from “clearly acceptable” to “clearly unacceptable” set by value on a defined evaluation scale

3.2
anosmia
lack of sensitivity to some olfactory stimulus due to physiological defects, which is not reversible

3.3
building product
product for incorporation in a permanent manner in construction works

Note 1 to entry: A building product can be solid, liquid or combined (see ISO 16000-11).