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Irish Standard
I.S. EN ISO 12460-3:2020

Wood-based panels - Determination of formaldehyde release - Part 3: Gas analysis method (ISO 12460-3:2020)

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National Foreword

I.S. EN ISO 12460-3:2020 is the adopted Irish version of the European Document EN ISO 12460-3:2020, Wood-based panels - Determination of formaldehyde release - Part 3: Gas analysis method (ISO 12460-3:2020)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 12460-3

October 2020

ICS 79.060.01

Supersedes EN ISO 12460-3:2015

English Version

Wood-based panels - Determination of formaldehyde release - Part 3: Gas analysis method (ISO 12460-3:2020)

Panneaux à base de bois - Détermination du dégagement de formaldéhyde - Partie 3: Méthode d'analyse de gaz (ISO 12460-3:2020)

Holzwerkstoffe - Bestimmung der Formaldehydabgabe - Teil 3: Gasanalyse-Verfahren (ISO 12460-3:2020)

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Ref. No. EN ISO 12460-3:2020 E

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European foreword

This document (EN ISO 12460-3:2020) has been prepared by Technical Committee ISO/TC 89 "Wood-based panels" in collaboration with Technical Committee CEN/TC 112 “Wood-based panels” 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of an identical text or by endorsement, at the latest by April 2021, and conflicting national standards shall be withdrawn at the latest by April 2021.

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INTERNATIONAL STANDARD

ISO 12460-3

Third edition
2020-10

Wood-based panels — Determination of formaldehyde release —

Part 3: Gas analysis method

Panneaux à base de bois — Détermination du dégagement de formaldéhyde —

Partie 3: Méthode d'analyse de gaz

Reference number
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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).

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This document was prepared by Technical Committee ISO/TC 89, *Wood based panels,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 112, *Wood based panels,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 12460-3:2015), which has been technically revised in order to improve the detection limit and the reproducibility of the method with regard to boards with low formaldehyde content.

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

— test period can be reduced from 4 h to 3 h;

— in 8.3 four different options to determine the formaldehyde release are introduced;

— conditioning procedure for decor finish foils specified in 7.1.

A list of all parts in the ISO 12460 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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Wood-based panels — Determination of formaldehyde release —

Part 3: Gas analysis method

1 Scope

This document specifies a procedure for determination of accelerated formaldehyde release from uncoated and coated wood-based panels using the gas analysis method. The procedure is also suitable for the testing of other materials (e.g. edge bands, floor coverings, foams, foils, laminated wood products, veneered wood products, coated wood products).

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 16979, *Wood-based panels — Determination of moisture content*

ISO 16999, *Wood-based panels — Sampling and cutting of test pieces*

3 Terms and definitions

No terms and definitions are listed in this document.

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/

4 Principle

A test piece of known surface area is placed in a closed chamber in which the temperature, humidity, airflow, and pressure are controlled to defined values. Formaldehyde released from the test pieces mixes with the air in the chamber. This air is continually drawn from the chamber and passes through gas wash bottles, containing water, which absorbs the released formaldehyde. At the end of the test, the formaldehyde concentration is determined photometrically or fluorimetrically. The formaldehyde release is calculated from this concentration, the sampling time, and the exposed area of the test pieces and is expressed in milligrams per square meter and hour (mg/m^2h).

5 Reagents

Reagents of recognized analytical purity and distilled or demineralised water (referred throughout the following text as distilled water) shall be used for the analysis.

5.1 4 ml acetylacetone solution are added to a 1 000 ml volumetric flask and made up to the mark with distilled water.

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