INTERNATIONAL STANDARD

ISO 13609

Second edition
2021-06

Wood-based panels — Plywood — Blockboards and battenboards

Panneaux à base de bois — Contreplaqués — Panneaux lattés avec lattes étroites et avec lattes larges

Reference number
ISO 13609:2021(E)

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Published in Switzerland

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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*, Subcommittee SC 3, *Plywood*.

This second edition cancels and replaces the first edition (ISO 13609:2014), which has been technically revised.

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

— inclusion of a reference to ISO 2426-4;

— deleted reference to ISO/IEC Guide 65:1996.

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Wood-based panels — Plywood — Blockboards and battenboards

1 Scope

This document establishes requirements for the specifications of blockboards and battenboards for general use, in dry, tropic dry/humid, and high-humid/exterior conditions. It includes requirements of materials, lay-up, physical and mechanical properties, bonding quality, formaldehyde release, conformity verification, and marking.

The values listed in this document relate to product properties, but they are not characteristic values to be used in design calculations.

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 1954, *Plywood — Tolerances on dimensions*

ISO 2074, *Plywood — Vocabulary*

ISO 2426-2:2020, *Plywood — Classification by surface appearance — Part 2: Hardwood*

ISO 2426-3:2000, *Plywood — Classification by surface appearance — Part 3: Softwood*

ISO 2426-4:2018, *Plywood — Classification by surface appearance — Part 4: Palm-plywood*

ISO 9426, *Wood-based panels — Determination of dimensions of panels*

ISO 12460-1, *Wood-based panels — Determination of formaldehyde release — Part 1: Formaldehyde emission by the 1-cubic-metre chamber method*

ISO 12460-3, *Wood-based panels — Determination of formaldehyde release — Part 3: Gas analysis method*

ISO 12460-4, *Wood-based panels — Determination of formaldehyde release — Part 4: Desiccator method*

ISO 12465:2007, *Plywood — Specifications*

ISO 12466-1, *Plywood — Bonding quality — Part 1: Test methods*

ISO 12466-2, *Plywood — Bonding quality — Part 2: Requirements*

ISO 16978, *Wood-based panels — Determination of modulus of elasticity in bending and of bending strength*

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

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

ISO 18775, *Veneers — Terms and definitions, determination of physical characteristics and tolerances*

3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 2074, ISO 12465, and ISO 18775 and the following apply.

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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 https://www.electropedia.org/

3.1
core strip
individual wood pieces with rectangular cross section which are assembled to form the solid core

4 Material requirement

4.1 Requirements for veneer

The following requirements apply to veneer at the time of pressing.

4.1.1 Lignocellulosic materials

Any wood species or other lignocellulosic material is permitted.

Veneers shall be identified according to the species, species group, or mechanical properties.

When veneers of different species are used to form a layer, these veneers shall be of similar mechanical and physical properties.

4.1.2 Thickness

The thickness, t, of veneer shall be 0,55 mm ≤ t ≤ 6,0 mm. When veneers are used to cover a core, the thickness of veneers adjacent to the core shall not be less than 1,5 mm.

4.1.3 Surface appearance

The surface appearance of veneer shall be controlled.

Surface appearance of the face layer shall satisfy the criteria defined for class II, as given in ISO 2426-2:2020, Table 1 or in ISO 2426-3:2000, Table 1 or in ISO 2426-4:2018, Table 1. Back layer shall not be more than 2 classes inferior to the face layer. If required, veneer classification of other layers shall be carried out in accordance with the limitations defined in ISO 12465:2007, Annex A.

4.1.4 Joint

Veneers jointed in width are allowed. If there is a joint in length, it shall be bonded as finger jointing or scarf jointing. End joint is not permitted on face ply.

4.1.5 Direction

The grain of the veneer directly applied on the core strip shall be perpendicular to the grain of the core.

4.2 Requirements for plywood

The following requirements apply to plywood at the time of pressing.

4.2.1 Wood species or other lignocellulosic material

Any wood species or other lignocellulosic material is permitted.

Plywood used for face and back layer shall be of similar mechanical and physical properties.

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