INTERNATIONAL STANDARD

ISO 16893-2

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Wood-based panels — Particleboard —

Part 2:

Requirements

Panneaux à base de bois — Panneaux de particules — Partie 2: Exigences

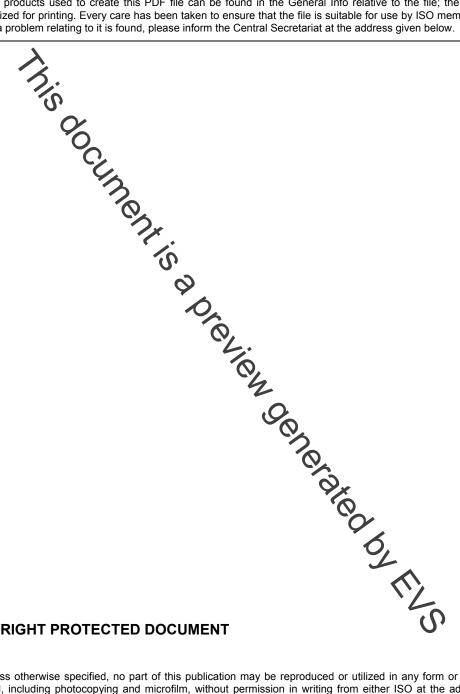


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Foreword

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 Maison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical contrattees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires applying by at least 75 % of the member bodies casting a vote.

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.

ISO 16893-2 was prepared by Technical Committee ISO/TC 89, Wood-based panels, Subcommittee SC 2, Particle boards.

ISO 16893 consists of the following parts, under the general title Wood-based panels — Particleboard:

— Part 1: Classifications

— Part 2: Requirements

Wood-based panels — Particleboard —

Part 2:

Requirements

1 Scope

This part of ISO 16893 provides the manufacturing property requirements for uncoated particleboard.

The values listed in this part of ISO 16893 relate to product properties used to classify particleboards into one of four types, P-GP, P-FN, P-LB or P-HLB (see Clause 3), for use in three service conditions, REG, MR and HMR. The values are not characteristic values to be used for design purposes.

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.

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

ISO 9427, Wood-based panels — Determination of density

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

ISO 12460-2, Wood-based panels — Determination of formal denyde release — Part 2: Small-scale 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 12460-5, Wood-based panels — Determination of formaldehyde release Part 5: Perforator method

ISO 16572, Timber structures — Wood-based panels — Test methods for structural properties

ISO 16893-1, Wood-based panels — Particleboard — Part 1: Classifications

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 16981, Wood-based panels — Determination of surface soundness

ISO 16983, Wood-based panels — Determination of swelling in thickness after immersion in water

ISO 16984, Wood-based panels — Determination of tensile strength perpendicular to the plane of the panel

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ISO 16987, Wood-based panels — Determination of moisture resistance under cyclic test conditions

ISO 16998, Wood-based panels — Determination of moisture resistance — Boil test

ISO 17064, Wood-based panels — Fibreboard, particleboard and oriented strand board (OSB) — Vocabulary

ISO 20585, Wood-based panels — Determination of wet bending strength after immersion in water at 70 °C or 100 °C (boiling temperature)

3 Terms, definitions and abbreviations

For the purposes of this decument, the terms and definitions given in ISO 17064 and ISO 16893-1 and the following abbreviations apply:

EXT exterior

FN furniture

GP general purpose

HLB heavy-duty load bearing

HMR highly moisture resistant

LB load bearing

MR moisture resistant

REG regular

UDF ultra-low-density fibreboard

4 Expression of specification limits and general requirements

4.1 Expression of specification limits

This International Standard may be used to evaluate groups of panels or production batches. To evaluate a group of panels, this requires that:

- a) The mandatory tests of Table 2, ISO 16893-1, be applied to samples of the group. Conditioning of test specimens is required as specified in each test method; and
- b) The results of the tests be evaluated against the appropriate specification limits in Tables 1 to 14, according to the product type and thickness range of the panels. Tables 1 and 2 apply to all product types and thickness ranges of panels.

For density variation and dimensions (Table 1), specification limits are based on the mean values for individual panels (calculated in accordance with Annex A) and are maximum tolerances. For formaldehyde emission, Table 2 gives upper specification limits for individual panel results.

Specification limits in Tables 3 to 14 are based on 5 (lower) or 95 (upper) percentile expressions, according to 4.2 and 4.3.

Particleboard shall comply with the relevant requirements of this International Standard when despatched from the producing factory.