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UMBAKNAD JA UKSED. TUGEVUS- JA
VEEKINDLUSNÕUDED**

**Small craft - Windows, portlights, hatches, deadlights
and doors - Strength and watertightness requirements
(ISO 12216:2020 + ISO 12216:2020/Amd 1:2022)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| | |
|---|---|
| See Eesti standard EVS-EN ISO 12216:2022+A1:2022 sisaldab Euroopa standardi EN ISO 12216:2022 ja selle muudatuse A1:2022 ingliskeelset teksti. | This Estonian standard EVS-EN ISO 12216:2022+A1:2022 consists of the English text of the European standard EN ISO 12216:2022 and its amendment A1:2022. |
| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 19.10.2022, muudatus A1 19.10.2022. | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 19.10.2022, for A1 19.10.2022. |
| Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega $\boxed{A1}$ $\langle A1 \rangle$. Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest. | The start and finish of text introduced or altered by amendment A1 is indicated in the text by tags $\boxed{A1}$ $\langle A1 \rangle$. The standard is available from the Estonian Centre for Standardisation and Accreditation. |

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ICS 47.080

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English Version

Small craft - Windows, portlights, hatches, deadlights and
doors - Strength and watertightness requirements (ISO
12216:2020 + ISO 12216:2020/Amd 1:2022)

Petits navires - Fenêtres, hublots, panneaux, tapes et
portes - Exigences de résistance et d'étanchéité (ISO
12216:2020 + ISO 12216:2020/Amd 1:2022)

Kleine Wasserfahrzeuge - Fenster, Bullaugen, Luken,
Seeschlagblenden und Türen - Anforderungen an die
Festigkeit und Wasserdichtheit (ISO 12216:2020 + ISO
12216:2020/Amd 1:2022)

This European Standard was approved by CEN on 6 June 2022. Amendment A1 was approved by CEN on 2 August 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

The text of ISO 12216:2020 has been prepared by Technical Committee ISO/TC 188 "Small craft" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 12216:2022 by Technical Committee CEN/TC 464 "Small Craft" the secretariat of which is held by SIS.

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 2023, and conflicting national standards shall be withdrawn at the latest by April 2023.

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This document supersedes EN ISO 12216:2018.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For the relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is included in EN ISO 12216:2022/A1:2022.

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Endorsement notice

The text of ISO 12216:2020 has been approved by CEN as EN ISO 12216:2022 without any modification.

A1 Amendment A1 European foreword

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Endorsement notice

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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 188, *Small craft*.

This second edition cancels and replaces the first edition (ISO 12216:2002), which has been technically revised.

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

- new definitions (Clause 3);
- change in watertightness requirements (4.3.1);
- change of size allowance for glazing in the hull in area I (6.3.1.1);
- change in the requirements for the use of glass in area IIa appliances (6.3.2);
- new requirements for flush deck hatches (6.3.3);
- new requirements for multihull break out panels (6.3.8);
- new definition and requirements for prefabricated appliances (6.3.9);
- new requirements for simply supported plates (7.2.9 and 7.2.10);
- new direct calculation method for laminated glass plates (7.3);
- new advanced calculation method for strength requirements on certain types of non glazed plates (7.4);

- new requirements for pressure test (D.2.1);
- new requirements for watertightness test (D.2.2);
- new requirement for mechanical links test (Clause D.3);
- change to method of separation test (D.4.3);
- new precalculated plate thickness tables (Annex F).

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Small craft — Windows, portlights, hatches, deadlights and doors — Strength and watertightness requirements

1 Scope

This document specifies technical requirements and test methods for windows, portlights, hatches, deadlights and doors on small craft with a length of hull, L_H , as defined in ISO 8666:2016, of up to 24 m. It takes into account the type of craft, its design category, and the location of the appliance.

The appliances considered in this document are only those that are critical for the craft's watertightness.

Openings and non-opening devices fitted below area I (see 3.5.2) are excluded from the scope of this document.

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 6603-1:2000, *Plastics — Determination of puncture impact behaviour of rigid plastics — Part 1: Non-instrumented impact testing*

ISO 11336-1:2012, *Large yachts — Strength, weathertightness and watertightness of glazed openings — Part 1: Design criteria, materials, framing and testing of independent glazed openings*

Ⓐ1 deleted text Ⓐ1

ISO 12217-1:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 1: Non-sailing boats of hull length greater than or equal to 6 m*

ISO 12217-2:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m*

ISO 12217-3:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 3: Boats of hull length less than 6 m*

EN 356:1999, *Glass in building — Security glazing — Testing and classification of resistance against manual attack*

EN 1063:1999, *Glass in building — Security glazing — Testing and classification of resistance against bullet attack*

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/>