

Fasteners - Hexagon regular nuts (style 1) (ISO 4032:2023)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 4032:2023 sisaldab Euroopa standardi EN ISO 4032:2023 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.08.2023.</p> <p>Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 4032:2023 consists of the English text of the European standard EN ISO 4032:2023.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 30.08.2023.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

Fasteners - Hexagon regular nuts (style 1) (ISO 4032:2023)

Fixations - Écrous normaux hexagonaux (style 1) (ISO 4032:2023)

Mechanische Verbindungselemente -
Sechskantmuttern (Typ 1) (ISO 4032:2023)

This European Standard was approved by CEN on 10 June 2023.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 4032:2023) has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 "Fasteners" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by February 2024, and conflicting national standards shall be withdrawn at the latest by February 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 4032:2012.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 4032:2023 has been approved by CEN as EN ISO 4032:2023 without any modification.

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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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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 2, *Fasteners*, Subcommittee SC 12, *Fasteners with metric internal thread*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 185, *Fasteners*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 4032:2012) which has been technically revised.

The main changes are as follows:

- nuts with $D < M5$ and $D > M39$ (with $m_{\min} < 0,8D$ not conforming to ISO 898-2 nor to ISO 3506-2) have been shifted to informative [Annex A](#); reference to ISO/TR 16224 for appropriate nut design has been added;
- M7 has been added;
- values of c_{\max} for sizes M1,6 to M2,5 have been amended in accordance with ISO 4759-1;
- $d_{a,\max}$, $d_{w,\min}$ and $m_{w,\min}$ have been specified with two decimal places;
- $d_{w,\min}$ for sizes $D \leq M5$ has been changed from $s_{\min} - IT16$ to $s_{\min} - IT15$ in order to have a larger bearing surface area and thus less contact pressure;
- for steel nuts, quenching and tempering condition has been specified in accordance with ISO 898-2, and property classes 5 and 12 have been added;
- for stainless steel nuts, grades D4 and D6 and property class 80 have been added;
- non-ferrous metal nuts have been deleted (as a consequence of the withdrawal of ISO 8839);
- specifications for marking and labelling have been added as [Clause 6](#).

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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Fasteners — Hexagon regular nuts (style 1)

1 Scope

This document specifies the characteristics of hexagon regular nuts (style 1), in steel and stainless steel, with metric coarse pitch thread M5 to M39, and with product grades A and B.

NOTE For nuts with sizes $D < M5$ and $D > M39$, see [Annex A](#).

If in certain cases other specifications are requested, property classes and stainless steel grades can be selected from ISO 898-2 or ISO 3506-2.

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 225, *Fasteners — Bolts, screws, studs and nuts — Symbols and descriptions of dimensions*

ISO 898-2, *Fasteners — Mechanical properties of fasteners made of carbon steel and alloy steel — Part 2: Nuts with specified property classes*

ISO 965-1, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data*

ISO 1891-4, *Fasteners — Vocabulary — Part 4: Control, inspection, delivery, acceptance and quality*

ISO 3269, *Fasteners — Acceptance inspection*

ISO 3506-2, *Fasteners — Mechanical properties of corrosion-resistant stainless steel fasteners — Part 2: Nuts with specified grades and property classes*

ISO 4042, *Fasteners — Electroplated coating systems*

ISO 4759-1, *Tolerances for fasteners — Part 1: Bolts, screws, studs and nuts — Product grades A, B and C*

ISO 6157-2, *Fasteners — Surface discontinuities — Part 2: Nuts*

ISO 8991, *Designation system for fasteners*

ISO 8992, *Fasteners — General requirements for bolts, screws, studs and nuts*

ISO 10683, *Fasteners — Non-electrolytically applied zinc flake coating systems*

ISO 10684, *Fasteners — Hot dip galvanized coatings*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology 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/>