International Standard

ISO 10512

Fasteners — Prevailing torque hexagon nuts — Regular nuts (with non-metallic insert), with fine pitch thread

Fixations — Écrous hexagonaux autofreinés — Écrous normaux (à anneau non métallique), à pas fin

Third edition
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Foreword

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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 third edition cancels and replaces the second edition (ISO 10512:2012) which has been technically revised.

The main changes are as follows:

— the design principles of these nuts have been clarified in Scope (see Note);

— style, relevant property classes and related quenching and tempering conditions for steel nuts have been specified in Clause 5 in accordance with ISO 898-2, and property class 6 has been deleted (see Table 3);

— stainless steel nuts have been added in accordance with ISO 3506-2;

— M20×2 has been added, as well as non-preferred sizes 18 mm, 22 mm, 27 mm, 33 mm and 39 mm;

— $d_{a,max}$ has been specified with two decimal places;

— h_{max} for size 20 mm has been increased so that regular, high and thin nuts have an identical room for the prevailing torque feature ($h_{max} - m_{min}$) to accommodate the non-metallic insert; h_{min} has therefore been increased in accordance with the specified tolerance (see Table 2);

— specifications for marking and labelling have been added as Clause 6.

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Fasteners — Prevailing torque hexagon nuts — Regular nuts (with non-metallic insert), with fine pitch thread

1 Scope

This document specifies the characteristics of prevailing torque hexagon regular nuts (with non-metallic insert), in steel and stainless steel, with metric fine pitch thread 8 mm to 39 mm, and with product grades A and B.

NOTE These nuts are designed with an overall height equal to m_{min} (as specified in ISO 898-2 and ISO 8673 for style 1) plus the prevailing torque feature. The height of the prevailing torque feature ($h_{max} - m_{min}$) for the non-metallic insert is identical for regular, high and thin nuts for a given diameter.

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 2320, *Fasteners — Prevailing torque steel nuts — Functional properties*

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*

3 Terms and definitions

No terms and definitions are listed in this document.

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