BS EN ISO 10511:2025

BSI Standards Publication

Fasteners — Prevailing torque hexagon nuts — Thin nuts (with non-metallic insert)

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National foreword

This British Standard is the UK implementation of EN ISO 10511:2025. It is identical to ISO 10511:2025. It supersedes BS EN ISO 10511:2012, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FME/9, Fasteners.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

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English Version

Fasteners - Prevailing torque hexagon nuts - Thin nuts (with non-metallic insert) (ISO 10511:2025)

Fixations - Écrous hexagonaux autofreinés - Écrous bas (à anneau non métallique) (ISO 10511:2025)

Verbindungselemente - Sechskantmuttern mit Klemmteil - Niedrige Muttern (mit nichtmetallischem Einsatz) (ISO 10511:2025)

This European Standard was approved by CEN on 20 June 2025.

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European foreword

This document (EN ISO 10511:2025) 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of an identical text or by endorsement, at the latest by December 2025, and conflicting national standards shall be withdrawn at the latest by December 2025.

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.

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Endorsement notice

The text of ISO 10511:2025 has been approved by CEN as EN ISO 10511:2025 without any modification.

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Foreword

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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 document 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 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 10511:2012) which has been technically revised.

The main changes are as follows:

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

— the use of thin nuts and a warning in relation to lower stripping resistance have been added in Scope;

— nuts with D < M5 (not included in ISO 898-2 and ISO 3506-2) have been dealt with in Annex A;

— for steel nuts, quenching and tempering conditions have been specified in Clause 5 in accordance with ISO 898-2 (see Table 3);

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

— M7, M18, M22, M27, M33 and M39 have been added;

— the countersink angle θ has been improved from 90° – 120° to 110° – 120°;

— $d_{a,max}$ and $d_{w,min}$ 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;

— h_{max} for M20 and M36 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);

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