

Aerospace series - Nut, bihexagonal, self-locking, in heat resisting nickel base alloy NI-PH2601 (Inconel 718), MoS₂ coated - Classification: 1 550 MPa (at ambient temperature)/425 °C

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 4012:2025 sisaldab Euroopa standardi EN 4012:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 29.10.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 4012:2025 consists of the English text of the European standard EN 4012:2025.</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 29.10.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

**Aerospace series - Nut, bihexagonal, self-locking, in heat
resisting nickel base alloy NI-PH2601 (Inconel 718), MoS2
coated - Classification: 1 550 MPa (at ambient
temperature)/425 °C**

Série aérospatiale - Écrou bihexagonal, à freinage interne, en alliage résistant à chaud base nickel NI-PH2601 (Inconel 718), revêtu MoS2 - Classification: 1 550 MPa (à température ambiante)/425 °C

Luft- und Raumfahrt - Zwölfkantmutter, selbstsichernd, aus hochwarmfester Nickelbasislegierung NI-PH2601 (Inconel 718), MoS2-beschichtet - Klasse: 1 550 MPa (bei Raumtemperatur)/425 °C

This European Standard was approved by CEN on 25 August 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 4012:2025) has been prepared by ASD-STAN.

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

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 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

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 4012:2004.

This document includes the following significant technical changes with respect to EN 4012:2004:

- Clause 3 “Terms and definitions” added;
- Clause 4 updated regarding surface treatment;
- Table 1 updated und extended;
- Clause 8 “Quality Management System” added.

Any feedback and questions on this document should be directed to the users’ national standards body. 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.

1 Scope

This document specifies the characteristics of self-locking bihexagonal nuts in NI-PH2601, MoS₂ coated, for aerospace applications.

Classification: 1 550 MPa¹/425 °C².

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.

EN 2424, *Aerospace series — Marking of aerospace products*

EN 2491, *Aerospace series — Molybdenum disulphide dry lubricants — Coating methods*

EN 2516, *Aerospace series — Passivation of corrosion resisting steels and decontamination of nickel or cobalt base alloys*

EN 2952, *Aerospace series — Heat resisting alloy NI-PH2601 — Solution treated and cold worked — Bar for forged fasteners — $D \leq 50$ mm — $1\ 270$ MPa $\leq R_m \leq 1\ 550$ MPa*

EN 4048, *Aerospace series — Nuts, self-locking, MJ threads, in heat resisting nickel base alloy NI-PH2601 (Inconel 718), MoS₂ coated — Classification: 1 550 MPa (at ambient temperature)/425 °C — Technical specification*

ISO 4095, *Aerospace — Bihexagonal drives — Wrenching configuration — Metric series*

ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*

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/>

4 Required characteristics

4.1 Configuration – Dimensions – Tolerances – Masses

Configuration, dimensions, tolerances and masses shall be in accordance with Figure 1 and Table 1.

Dimensions and tolerances are in millimetres. They apply before surface coating.

4.2 Material

Material shall be in accordance with EN 2952.

¹ Corresponds to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

² Maximum test temperature of the parts.