
5 YfcbUj H_UËA UHjWžgcX _UgHžgUa cbUfUj bUbyždfcglc`[JV`1j YžgUa cj Ufcj UbYž
n`hjbYžcXdcfbYdfchj`lcd`chžbUbl`^j]cgbcj žžbUa UnUbYn`AcG&Ë`?`UgjZ_UWU`%
) \$`ADUfufj`hYa dYfUi f]c_c`jWk:#' %` š7

Aerospace series - Nuts, barrel, self-locking, floating, self-aligning, in heat resisting nickel base alloy, MoS2 lubricated - Classification: 1 550 MPa (at ambient temperature) / 315 °C

Luft- und Raumfahrt - Selbsteinstellende, freibewegliche, selbstsichernde
Tonnenmuttern, aus hochwarmfester Nickelbasislegierung, MoS2-geschmiert - Klasse: 1
550 Mpa (bei Raumtemperatur) / 315 °C

SIST EN 4591:2006
Série aérospatiale - Écrous à portée cylindrique, à freinage interne, flottants, orientables,
en alliage résistant a chaud a base de nickel, lubrifiés MoS2 - Classification : 1 550 MPa
(a température ambiante) / 315 °C

Ta slovenski standard je istoveten z: EN 4591:2005

ICS:

49.030.30

SIST EN 4591:2006

en

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ICS 49.030.30

English Version

Aerospace series - Nuts, barrel, self-locking, floating, self-aligning, in heat resisting nickel base alloy, MoS2 lubricated -
Classification: 1 550 MPa (at ambient temperature) / 315 °C

Série aéronautique - Écrous à portée cylindrique, à freinage interne, flottants, orientables, en alliage résistant à chaud à base de nickel, lubrifiés MoS2 - Classification : 1 550 MPa (à température ambiante) / 315 °C

Luft- und Raumfahrt - Selbsteinstellende, freibewegliche, selbstsichernde Tonnenmuttern, aus hochwarmfester Nickelbasislegierung, MoS2-geschmiert - Klasse: 1 550 Mpa (bei Raumtemperatur) / 315 °C

This European Standard was approved by CEN on 26 October 2005.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This European Standard (EN 4591:2005) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of AECMA, 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 June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

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

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

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1 Scope

This standard specifies the characteristics of self-locking, floating, self-aligning barrel nuts, in heat resisting nickel alloy, MoS₂ lubricated.

Classification: 1 550 MPa ¹⁾ / 315 °C ²⁾

2 Normative references

The following referenced documents are indispensable for the application 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 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts.*

ISO 5858, *Aerospace — Nuts, self-locking, with maximum operating temperature less than or equal to 425 °C — Procurement specification.*

ISO 8788, *Aerospace — Nuts, metric — Tolerances of form and position.*

ISO 12278, *Aerospace — Nuts, barrel, self-locking, floating, self-aligning, with MJ thread, Classifications: 900 MPa (at ambient temperature) / 235 °C, 1 100 MPa (at ambient temperature) / 235 °C, 1 250 MPa (at ambient temperature) / 235 °C and 1 550 MPa (at ambient temperature) / 235 °C — Dimensions.*

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

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

EN 3666, *Aerospace series — Heat resisting alloy NI-PH2601 — Solution treated and cold worked — Bar for forged fasteners — $D \leq 50$ mm — $1\ 550$ MPa $\leq R_m \leq 1\ 830$ MPa. ³⁾*

EN 9100, *Aerospace series — Quality management systems — Requirements (based on ISO 9001:2000) and Quality systems — Model for quality assurance in design, development, production, installation and servicing (based on ISO 9001:1994).*

EN 9133, *Aerospace series — Quality management systems — Qualification Procedure for aerospace standard parts.*

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 temperature that the nut is able to withstand, without permanent alteration to its original characteristics, after ambient temperature has been restored. The maximum temperature is conditioned by the surface treatment.

3) Published as AECMA Prestandard at the date of publication of this standard.

3 Required characteristics

3.1 Configuration – Dimensions – Masses

See Figure 1 and Table 1.

Dimensions and tolerances are: in conformity with ISO 12278 (except for temperature class), expressed in millimetres and apply before MoS₂ lubrication.

Details of form not stated are at the manufacturer's option.

3.2 Tolerances of form and position

See ISO 8788

3.3 Material

See EN 3666

3.4 Surface treatment

See EN 2491, thickness not specified, mandatory on threads, optional on other surfaces

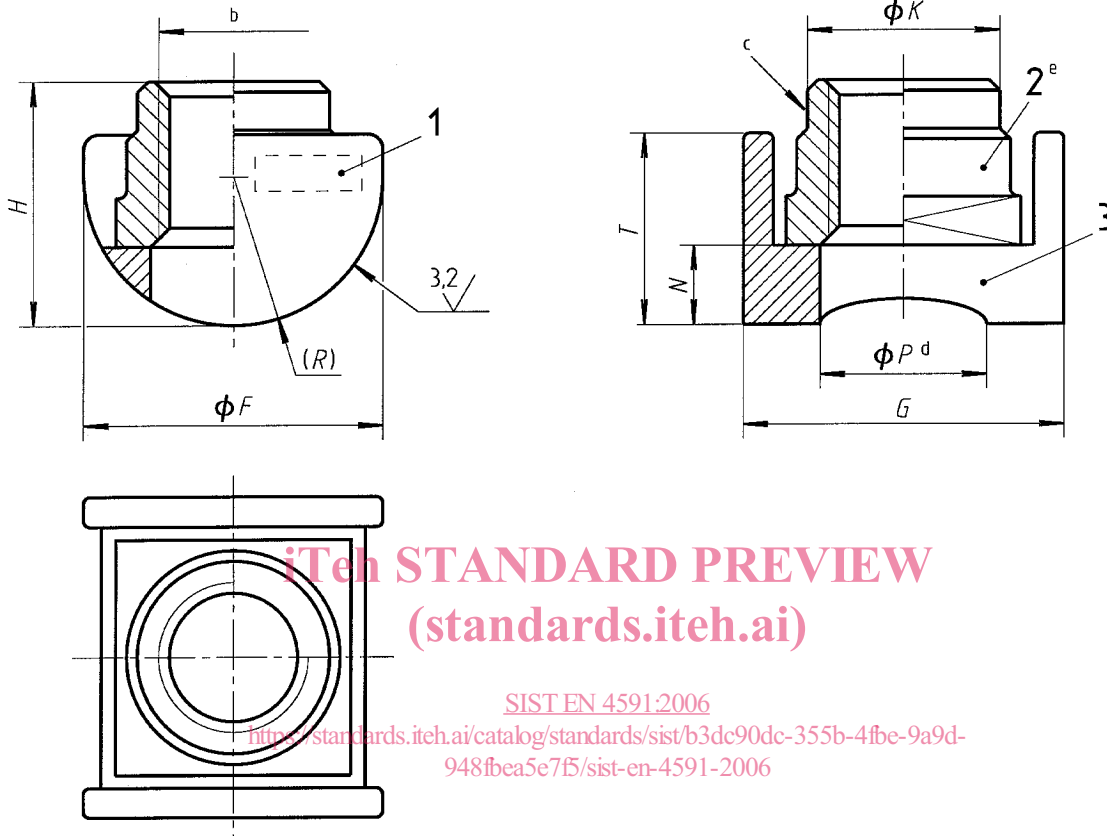
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6,3 $\left[\begin{array}{c} 3,2 \\ \checkmark \end{array} \right]^a$

Remove sharp edges 0,1 to 0,4.



Key

1 Marking

2 Thread element

3 Cradle

^a These values in micrometres apply before surface treatment. They do not apply to threads, punched holes or sheared edges the surface texture of which will be as achieved by usual manufacturing methods.

^b Thread

^c Form out-of-round in this area to achieve the self-locking torque requirement. Tooling marks permissible in this area

^d Means of retaining nut in cradle are manufacturer's option providing envelope and performance requirements are met.

^e Minimum radial float: 0,4

Figure 1