SLOVENSKI STANDARD
SIST EN 2647:2001

01-januar-2001

Aerospace series - Nuts, hexagonal, self-locking, ball seat, in alloy steel, cadmium plated, MoS2 lubricated - Classification: 900 MPa (at ambient temperature) / 235oC

Aerospace series - Nuts, hexagonal, self-locking, ball seat, in alloy steel, cadmium plated, MoS2 lubricated - Classification: 900 MPa (at ambient temperature) / 235 °C

Luft- und Raumfahrt - Sechskantmuttern, selbstsichernd, für Neigungsausgleich, aus legiertem Stahl, verkadmet, MoS2-geschmiert - Klasse: 900 MPa (bei Raumtemperatur) / 235 °C

Série aérospatiale - Ecrous hexagonaux, a freinage interne, orientables, en acier allié, cadmiés, lubrifiés MoS2 - Classification: 900 MPa (a température ambiante) / 235 °C

Ta slovenski standard je istoveten z: **EN 2647:1995**

ICS:

49.030.30 Matice Nuts

SIST EN 2647:2001 **en**

EUROPEAN STANDARD **EN 2647**

NORME EUROPÉENNE

EUROPÄISCHE NORM July 1995

ICS 49.040.20

Descriptors: aircraft industry, fastener, nut : fastener, hexagonal nut, self-locking nut, alloy steel, cadmium plating, classification, dimension, surface treatment, screw thread, designation

English version

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

This draft European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries and votes carried out in accordance with the rules of this Association, this draft has successively 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of an identical text or by endorsement, at the latest by January 1996, and conflicting national standards shall be withdrawn at the latest by January 1996.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies the characteristics of self-locking hexagonal nuts with ball seat in alloy steel, cadmium plated, MoS_2 lubricated.

Classification : 900 MPa [1] / 235 °C [2]

They are intended to be used with washers to EN 2648 or suitable parts, see annex A.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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

ISO 5858 Aerospace - Self-locking nuts with maximum operating temperature ≤ 425 °C - Procurement specification

ISO 8788 Aerospace - Fasteners - Tolerances of form and position for nuts

EN 2000 Aerospace series - Quality assurance - EN aerospace products - Approval of the quality system of manufacturers

EN 2133 Cadmium plating of steels with maximum specified tensile strength equal to or less than 1 450 MPa and copper and copper alloys - Aerospace series [3]

EN 2424 Aerospace series - Marking of aerospace products

EN 2491 Aerospace series - Molybdenum disulphide dry lubricants - Coating methods [4]

EN 2648 Aerospace series - Washers, concave, in alloy steel, cadmium plated

EN 3042 Aerospace series - Quality assurance - EN aerospace products - Qualification procedure

TR 3791 Aerospace series - Materials for all metal self-locking nuts and thin wall inserts of temperature classes ≤ 425 °C [5]

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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 cadmium plating.
3) Published as AECMA Standard at the date of publication of this standard
4) In preparation at the date of publication of this standard
5) Published as AECMA Technical Report 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 expressed in millimetres and apply after cadmium plating but before MoS_2 lubrication.

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

3.2 Tolerances of form and position

ISO 8788

3.3 Materials

TR 3791

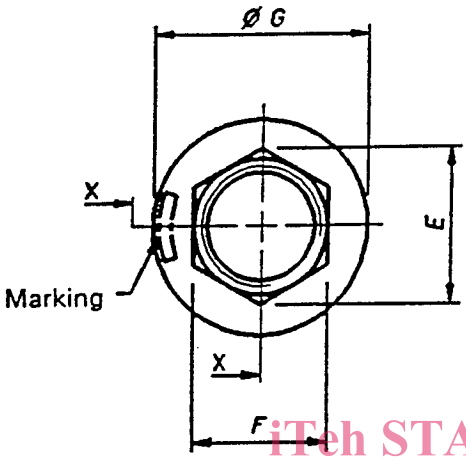
3.4 Surface treatments

EN 2133, 5 μm min. on threads and all surfaces which can be contacted by a 20 mm diameter ball. On all other surfaces, a continuous deposit shall be present.

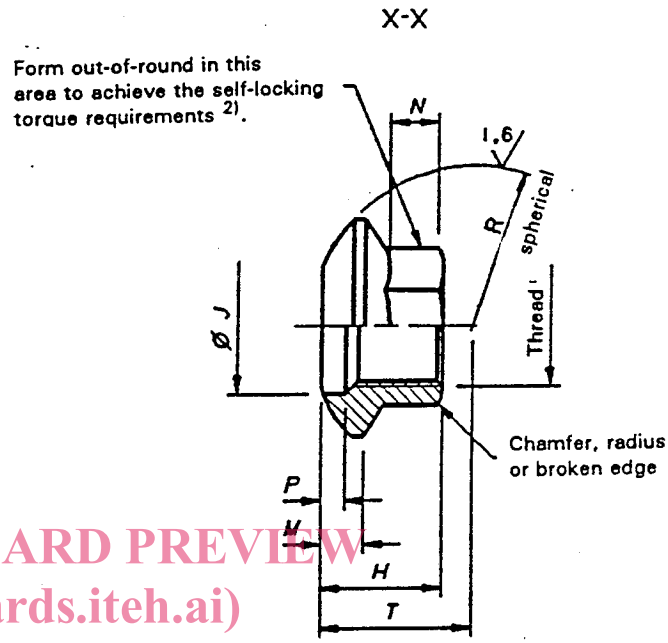
EN 2491, thickness not specified

6,3 / (1,6 /)[1)]

Remove sharp edges 0,1 to 0,4



X-X



1) These values in micrometres apply before surface treatment. They do not apply to threads the surface texture of which will be as achieved by usual manufacturing methods.
2) Tooling marks are permitted in this area.

Figure 1

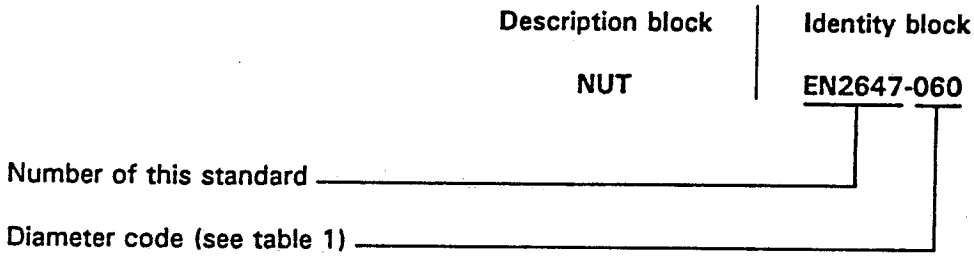
Table 1

Diameter code	Thread [1)]	E [2)] min.	F [2)]		G ± 0,2	H max.	J min.	M min.	N min.	P min.	R 0 - 0,5	T	Mass [3)]
050	MJ5x0,8-4H6H	6,5	6	h12	10,3	7,05	5,5	1,7	2	2,05	8	7,5	1,7
060	MJ6x1-4H5H	7,6	7		13	8,1	6,5	2,5	2,3	2,7	9	8,4	2,5
080	MJ8x1-4H5H	10,9	10	h13	17	9,7	8,5	3	3,2	2,5	12,5	11,75	6,5
100	MJ10x1,25-4H5H	13,2	12		21	11,95	10,5	4	3,3	2,95	16	15,1	11,3
120	MJ12x1,25-4H5H	15,5	14		24	13,46	12,5	4,5	4,5	2,65	18	16,9	17,4

1) In accordance with ISO 5855-2. In self-locking zone the tolerances apply before forming out-of-round.
2) These dimensions apply before forming out-of-round, but finished nuts shall fit a standard socket wrench.
3) Approximate values (kg/1 000 pieces), calculated on the basis of 7,85 kg/dm^3, given for information puposes only

4 Designation

EXAMPLE :



NOTE : If necessary, the code I9005 shall be placed between the description block and the identity block.

5 Marking

EN 2424, style N plus diameter code. See figure 1.

6 Technical specification

ISO 5858 except for :

- Approval of manufacturers : see EN 2000 ;
- Qualification of products, nut and washer (EN 2648) : see EN 3042.