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Standards

Irish Standard
I.S. EN 3229:2009

Aerospace series - Nuts, hexagonal, plain, reduced height, normal across flats, in steel, cadmium plated, left hand thread -
Classification: 900 MPa (at ambient temperature) / 235 °C

I.S. EN 3229:2009

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English Version

**Aerospace series - Nuts, hexagonal, plain, reduced height,
normal across flats, in steel, cadmium plated, left hand thread -
Classification: 900 MPa (at ambient temperature) / 235 °C**

Série aérospatiale - Écrous hexagonaux ordinaires, hauteur
réduite, surplats normaux, en acier, cadmiés, filetage à
gauche - Classification : 900 MPa (à température
ambiante) / 235 °C

Luft- und Raumfahrt - Flache Sechskantmuttern, mit
normaler Schlüsselweite, aus Stahl, verkadmet,
Linksgewinde - Klasse: 900 MPa (bei Raumtemperatur) /
235 °C

This European Standard was approved by CEN on 29 September 2009.

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Foreword

This document (EN 3229:2009) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-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 ASD, 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of an identical text or by endorsement, at the latest by June 2010, and conflicting national standards shall be withdrawn at the latest by June 2010.

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1 Scope

This European Standard specifies the characteristics of plain, hexagonal nuts, reduced height, normal across flats, with left hand thread, in steel, cadmium plated.

Classification: 900 MPa ¹⁾ / 235 °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.

EN 2133, *Aerospace series — Cadmium plating of steels with specified tensile strength $\leq 1\ 450$ MPa, copper, copper alloys and nickel alloys*

EN 2205, *Aerospace series — Steel FE-PL1502 (25CrMo4) — $900\ \text{MPa} \leq R_m \leq 1\ 100\ \text{MPa}$ — Bars — $D_e \leq 40\ \text{mm}$*

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

EN 2438, *Aerospace series — Steel FE-PL2102 (35NiCr6) — $900\ \text{MPa} \leq R_m \leq 1\ 100\ \text{MPa}$ — Bars — $D_e \leq 40\ \text{mm}$*

EN 2444, *Steel FE-PL711 — $900\ \text{MPa} \leq R_m \leq 1\ 100\ \text{MPa}$ — Bars and wires — $D_e \leq 45\ \text{mm}$ ³⁾*

EN 2448, *Aerospace series — Steel FE-PL1503 (35CrMo4) — $900\ \text{MPa} \leq R_m \leq 1\ 100\ \text{MPa}$ — Bars — $D_e \leq 40\ \text{mm}$*

EN 3513, *Aerospace series — Steel FE-PL711 — Hardened and tempered — $900 \leq R_m \leq 1\ 100\ \text{MPa}$ — Bar and wire — $D_e \leq 45\ \text{mm}$ ⁴⁾*

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defense Organizations*

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

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

ISO 9139, *Aerospace — Nuts, plain or slotted (castellated) — Procurement specification*

ISO 9609, *Aerospace — Nuts, hexagonal, plain, reduced height, normal across flats, with MJ threads, classifications: 450 MPa (at ambient temperature) /120 °C, 450 MPa (at ambient temperature) /235 °C, 600 MPa (at ambient temperature) /425 °C, 900 MPa (at ambient temperature) /235 °C, 900 MPa (at ambient temperature) /315 °C, 900 MPa (at ambient temperature) /650 °C, 1 100 MPa (at ambient temperature) /235 °C, 1 100 MPa (at ambient temperature) /730 °C and 1 250 MPa (at ambient temperature)/600 °C — Dimensions*

1) Corresponds to strength class of the associated bolt, the 100 % load of which it is able to withstand, when tested at ambient temperature, without breaking or cracking.

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) Inactive for new design. See EN 3513.

4) Published as ASD Prestandard at the date of publication of this standard.

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