

Irish Standard I.S. EN 2869:2009

Aerospace series - Nuts, hexagonal, slotted/castellated, normal height, normal accross flats, in heat resisting steel, passivated - Classification: 1 100 MPa (at ambient temperature) / 650°C

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 2869

November 2009

ICS 49.030.30

English Version

### Aerospace series - Nuts, hexagonal, slotted/castellated, normal height, normal accross flats, in heat resisting steel, passivated -Classification: 1 100 MPa (at ambient temperature) / 650 °C

Série aérospatiale - Écrous hexagonaux à créneaux, hauteur normale, surplats normaux, en acier résistant à chaud, passivés - Classification : 1 100 MPa (à température ambiante) / 650 °C Luft- und Raumfahrt - Flache Kronenmuttern, normale Höhe, normale Schlüsselweite, aus hochwarmfestem Stahl, passiviert - Klasse: 1 100 MPa (bei Raumtemperatur) / 650 °C

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

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## Foreword

This document (EN 2869:2009) 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of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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### 1 Scope

This European Standard specifies the characteristics of hexagonal slotted/castellated nuts, normal height, normal across flats, in heat resisting steel, passivated.

Classification: 1 100 MPa <sup>1)</sup> / 650 °C <sup>2)</sup>.

### 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 2398, Aerospace series — Heat resisting steel FE-PA2601 (X6NiCrTiMoV26-15) —  $R_m \ge 900$  MPa — Bars for machined bolts —  $D \le 25$  mm

EN 2399, Aerospace series — Heat resisting steel FE-PA2601 (X4NiCrTiMoV26-15) —  $R_m \ge 900$  MPa — Bars for forged bolts —  $D \le 25$  mm

EN 2424, Aerospace series — Marking of aerospace products

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

EN 3639, Aerospace series — Heat resisting alloy FE-PA2601 — Softened and cold worked — Wire for forged fasteners —  $D \le 15 \text{ mm} - 900 \text{ MPa} \le R_m \le 1 100 \text{ MPa}^{-3}$ 

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

ISO 4147, Aerospace — Nuts, hexagonal, slotted (castellated), normal height, normal across flats, with MJ threads, classifications: 600 MPa (at ambient temperature)/120 °C, 600 MPa (at ambient temperature)/235 °C, 900 MPa (at ambient temperature)/425 °C, 1100 MPa (at ambient temperature)/235 °C, 1100 MPa (at ambient temperature)/235 °C, 1100 MPa (at ambient temperature)/650 °C, 1210 MPa (at ambient temperature)/730 °C, 1250 MPa (at ambient temperature)/235 °C and 1550 MPa (at ambient temperature)/ 600°C — Dimensions

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

TR 3823, Aerospace series — Materials for plain, slotted and self-locking by plastic ring hexagonal nuts <sup>4</sup>)

<sup>1)</sup> 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.

<sup>2)</sup> 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 material.

<sup>3)</sup> Published as ASD-STAN Prestandard at the date of publication of this standard.

<sup>4)</sup> Published as ASD-STAN Technical Report at the date of publication of this standard.



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