Irish Standard
I.S. EN 4132:2009

# Aerospace series - Bolts, normal hexagonal head, coarse tolerance normal shank, long thread, in alloy steel, cadmium plated - Classification: 1 100 MPa (at ambient temperature) / 235 °C

**I.S. EN 4132:2009**

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Údarás um Chaighdeáin Náisiúnta na hÉireann

**I.S. EN 4132:2009**

EUROPEAN STANDARD

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# EN 4132

July 2009

ICS 49.030.20

English Version

# Aerospace series - Bolts, normal hexagonal head, coarse tolerance normal shank, long thread, in alloy steel, cadmium plated - Classification: 1 100 MPa (at ambient temperature) / 235 °C

Série aérospatiale - Vis à tête hexagonale normale, tige normale à tolérance large, filetage long, en acier allié, cadmiées - Classification: 1 100 MPa (à température ambiante) / 235 °C

Luft- und Raumfahrt - Sechskantschrauben, langes Gewinde, aus legiertem Stahl, verkadmet - Klasse : 1 100 MPa (bei Raumtemperatur) / 235 °C

This European Standard was approved by CEN on 23 April 2009.



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

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# Foreword

This document (EN 4132:2009) 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of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

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.

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# 1 Scope

This standard specifies the characteristics of bolts, normal hexagonal head, coarse tolerance normal shank, long thread, in alloy steel, cadmium plated.

Classification: 1 100 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 ≤ 1 450 MPa, copper, copper alloys and nickel alloys.*

EN 2137, *Steel FE-PL75 — 1 100 MPa ≤ $R_m$ ≤ 1 250 MPa — Bars $D_e$ ≤ 100 mm — Aerospace series.* [3]

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

EN 3514, *Aerospace series — Steel FE-PL711 — Hardened and tempered — 1 100 ≤ $R_m$ ≤ 1 300 MPa — Bar and wire for bolts — $D_e$ ≤ 25 mm.* [4]

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.*

TR 3775, *Aerospace series — Bolts and pins — Materials.* [5]

ISO 3353-1, *Aerospace — Lead and runout threads — Part 1: Rolled external threads.*

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

ISO 7689, *Aerospace — Bolts, with MJ threads, made of alloy steel, strength class 1 100 MPa — Procurement specification.*

ISO 7913, *Aerospace — Bolts and screws, metric — Tolerances of form and position.*

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1) Minimum tensile strength of the material at ambient temperature.

2) Maximum temperature that the bolt can withstand without continuous change in its original characteristics, after return to ambient temperature. The maximum temperature is determined by the surface treatment.

3) Published as ASD Standard at the date of publication of this standard.

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

5) Published as ASD Technical Report at the date of publication of this standard.