Aerospace series - Bolts, normal hexagonal head, coarse tolerance normal shank, short thread, in heat resisting nickel base alloy, aluminium IVD coated -Classification: 1 250 MPa (at ambient temperature) / 425 °C



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Käesolev Eesti standard EVS-EN 4128:2009 sisaldab Euroopa standardi EN 4128:2009 ingliskeelset teksti.

This Estonian standard EVS-EN 4128:2009 consists of the English text of the European standard EN 4128:2009.

Standard on kinnitatud Eesti Standardikeskuse 31.08.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.08.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.07.2009.

Date of Availability of the European standard text 01.07.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

The standard is available from Estonian standardisation organisation.

ICS 49.030.20

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# EUROPEAN STANDARD

# **EN 4128**

NORME EUROPÉENNE EUROPÄISCHE NORM

July 2009

ICS 49.030.20

#### **English Version**

Aerospace series - Bolts, normal hexagonal head, coarse tolerance normal shank, short thread, in heat resisting nickel base alloy, aluminium IVD coated - Classification: 1 250 MPa (at ambient temperature) / 425 °C

Série aérospatiale - Vis à tête hexagonale normale, fût normal à tolérance large, filetage court, en alliage résistant à chaud à base de nickel, revêtues aluminium IVD -Classification: 1 250 MPa (à température ambiante) / 425 Luft- und Raumfahrt - Sechskantschrauben, kurzes Gewinde, aus hochwarmfester Nickelbasislegierung, Aluminum IVD beschichtet - Klasse: 1 250 MPa (bei Raumtemperatur) / 425 °C

This European Standard was approved by CEN on 20 May 2009.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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# **Foreword**

This document (EN 4128:2009) 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, short thread, in heat resisting nickel base alloy, aluminium IVD coated.

Classification: 1 250 MPa 1) / 425 °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 2424, Aerospace series — Marking of aerospace products.

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.

ISO 3193, Aerospace — Bolts, normal hexagonal head, normal shank, short or medium length MJ threads, metallic material, coated or uncoated, strength classes less than or equal to 1 100 MPa — Dimensions.

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

ISO 9154, Aerospace — Bolts, with MJ threads, made of heat-resistant nickel-based alloy, strength class 1 550 MPa — Procurement specification.

TR 3775, Aerospace series — Bolts and pins — Materials. 3)

MIL-DTL-83488D, Coating, aluminium, high purity. 4)

# 3 Required characteristics

# 3.1 Configuration — Dimensions — Masses

See Figure 1 and Table 1.

Dimensions and tolerances are: in conformity with ISO 3193, expressed in millimetres and apply after surface treatment.

<sup>1)</sup> Minimum tensile strength of the material at ambient temperature.

<sup>2)</sup> 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.

<sup>3)</sup> Published as ASD Technical Report at the date of publication of this standard.

<sup>4)</sup> Published by: Department of Defense (DOD), the Pentagon, Washington, D.C. 20301, USA.