

Irish Standard I.S. EN 4309:2016

Aerospace series - Nuts, hexagon, selflocking by plastic ring, normal height, normal across flats, in alloy steel, cadmium plated -Classification: 900 MPa (at ambient temperature) / 120 °C

© CEN 2017 No copying without NSAI permission except as permitted by copyright law.

#### I.S. EN 4309:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.* 

*This document is based on:* EN 4309:2016

*Published:* 2016-12-21

*This document was published* under the authority of the NSAI and comes into effect on:

2017-01-16

ICS number:

49.030.30

NOTE: If blank see CEN/CENELEC cover page

NSAI	T +353 1 807 3800	Sales:
1 Swift Square,	F +353 1 807 3838	T +353 1 857 6730
Northwood, Santry	E standards@nsai.ie	F +353 1 857 6729
Dublin 9	W NSAI.ie	W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

#### **National Foreword**

I.S. EN 4309:2016 is the adopted Irish version of the European Document EN 4309:2016, Aerospace series -Nuts, hexagon, self-locking by plastic ring, normal height, normal across flats, in alloy steel, cadmium plated - Classification: 900 MPa (at ambient temperature) / 120 °C

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

#### Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This is a free page sample. Access the full version online.

This page is intentionally left blank

### This is a free page sample. Access the full version online. I.S. EN 4309:2016

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

# EN 4309

December 2016

ICS 49.030.30

**English Version** 

## Aerospace series - Nuts, hexagon, self-locking by plastic ring, normal height, normal across flats, in alloy steel, cadmium plated - Classification: 900 MPa (at ambient temperature) / 120 °C

Série aérospatiale - Écrous hexagonaux, à freinage interne par bague plastique, hauteur normale, surplats normaux, en acier allié, cadmiés - Classification : 900 MPa (à température ambiante) / 120 °C Luft- und Raumfahrt - Sechskantmuttern, selbstsichernd mit Plastikring, mit normaler Schlüsselweite, aus legiertem Stahl, verkadmet -Klasse: 900 MPa (bei Raumtemperatur) / 120 °C

This European Standard was approved by CEN on 11 March 2016.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2016 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 4309:2016 E

### EN 4309:2016 (E)

## Contents

Europ	ean foreword	3
1	Scope	4
2	Normative references	4
3	Required characteristics	4
4	Designation	6
5	Marking	7
6	Technical specification	7

### **European foreword**

This document (EN 4309:2016) 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 2017, and conflicting national standards shall be withdrawn at the latest by June 2017.

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.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### 1 Scope

This European Standard specifies the characteristics of hexagonal nuts, self-locking by plastic ring, normal height, normal across flats, in alloy steel, cadmium plated.

Classification: 900 MPa <sup>1</sup>) / 120 °C <sup>2</sup>)

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 2133, Aerospace series — Cadmium plating of steels with specified tensile strength  $\leq$  1 450 MPa, copper, copper alloys and nickel alloys

EN 9100, Aerospace series — Quality Management Systems — Requirements for Aviation, Space and Defence Organizations

EN 9133, Aerospace series — Quality Management Systems — Qualification Procedure for Aerospace Standard Products

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

ISO 5858, Aerospace — Nuts, self-locking, with maximum operating temperature less than or equal to 425  $^{\circ}C$  — Procurement specification

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

TR 3823, Aerospace series — Materials for plain, slotted and self-locking by plastic ring hexagonal nuts <sup>3</sup>)

### **3 Required characteristics**

### 3.1 Configuration – Dimensions – Masses

See Figure 1 and Table 1.

Dimensions and tolerances are expressed in millimetres and apply after surface treatment.

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

#### 3.2 Tolerances of form and position

ISO 8788

<sup>1)</sup> 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.

<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 plastic ring.

<sup>3)</sup> Published as ASD-STAN Technical Report at the date of publication of this standard by AeroSpace and Defence industries Association of Europe - Standardization (ASD-STAN) (<u>www.asd-stan.org</u>)



This is a free preview. Purchase the entire publication at the link below:

**Product Page** 

S Looking for additional Standards? Visit Intertek Inform Infostore

> Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation