



**NSAI**  
Standards

Irish Standard  
I.S. EN 4400-3:2019

Aerospace series - Aluminium and  
aluminium- and magnesium- alloys -  
Technical specification - Part 3:  
Aluminium and aluminium alloy bar and  
section

**I.S. EN 4400-3:2019**

*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 4400-3:2019

*Published:*

2019-03-27

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

2019-04-14

ICS number:

49.025.20

NOTE: If blank see CEN/CENELEC cover page

NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

## National Foreword

I.S. EN 4400-3:2019 is the adopted Irish version of the European Document EN 4400-3:2019, Aerospace series - Aluminium and aluminium- and magnesium- alloys - Technical specification - Part 3: Aluminium and aluminium alloy bar and section

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

For relationships with other publications refer to the NSAI web store.

**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 page is intentionally left blank

EUROPEAN STANDARD

EN 4400-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2019

ICS 49.025.20

Supersedes EN 2070-1:1989, EN 2070-3:1989

English Version

**Aerospace series - Aluminium and aluminium- and magnesium- alloys - Technical specification - Part 3:  
Aluminium and aluminium alloy bar and section**

Série aérospatiale - Aluminium et alliages d'aluminium  
et magnésium - Spécification technique - Partie 3 :  
Barres et profilés en aluminium et alliages  
d'aluminium

Luft- und Raumfahrt - Aluminium und Aluminium- und  
Magnesiumlegierungen - Technische  
Lieferbedingungen - Teil 3: Stangen und Pressprofile  
aus Aluminium und Aluminiumlegierungen

This European Standard was approved by CEN on 28 August 2017.

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, Serbia, 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: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>		<b>Page</b>
<b>European foreword .....</b>		<b>3</b>
<b>1</b>	<b>Scope.....</b>	<b>5</b>
<b>2</b>	<b>Normative references.....</b>	<b>5</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>7</b>
<b>4</b>	<b>Wording of order.....</b>	<b>8</b>
<b>5</b>	<b>Health and safety.....</b>	<b>8</b>
<b>6</b>	<b>Technical requirements .....</b>	<b>8</b>
<b>Annex A (normative) Orientation and location of tensile test pieces in bar and sections .....</b>		<b>35</b>
<b>Annex B (normative) Orientation and location of bearing stress specimens in bar and sections .....</b>		<b>37</b>

## **European foreword**

This document (EN 4400-3:2019) 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 September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 2070-1:1989, EN 2070-1/A1:1993, EN 2070-3:1989.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**EN 4400-3:2019 (E)**

## **Introduction**

This European Standard is part of the series of EN metallic material standards for aerospace applications. The general organization of this series is described in EN 4258.



## 1 Scope

This European Standard defines the requirements for the ordering, manufacture, testing, inspection and delivery of aluminium and aluminium alloy, bar and section, produced by extrusion, rolling or drawing. It shall be applied when referred to and in conjunction with the EN material standard unless otherwise specified on the drawing, order or inspection schedule.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 515, *Aluminium and aluminium alloys — Wrought products — Temper designations*

EN 2002-001, *Aerospace series — Metallic materials — Test methods — Part 001: Tensile testing at ambient temperature*

EN 2002-6, *Aerospace series — Metallic materials — Test methods — Part 6: Bend testing*<sup>1)</sup>

EN 2002-8, *Aerospace series — Metallic materials — Test methods — Part 8: Micrographic determination of grain size*<sup>1)</sup>

EN 2002-022, *Test methods for metallic materials — Part 022: Plane strain fracture toughness test*<sup>2)</sup>

EN 2004-1, *Aerospace series — Test methods for aluminium and aluminium alloy products — Part 1: Determination of electrical conductivity of wrought aluminium alloys*

EN 2004-10, *Aerospace series — Test methods for aluminium and aluminium alloy products — Part 10: Preparation of micrographic specimens for aluminium alloys*<sup>1)</sup>

EN 2021, *Aerospace series — Metallic materials — Test methods — Shear testing for thin flat product*<sup>1)</sup>

EN 2032-001, *Aerospace series — Metallic materials — Part 1: Conventional designation*

EN 2032-2, *Aerospace series — Metallic materials — Part 2: Coding of metallurgical condition in delivery condition*

EN 2078, *Aerospace series — Metallic materials — Manufacturing schedule, inspection schedule, inspection and test report — Definition, general principles, preparation and approval*

EN 2715, *Aerospace series — Macrographic examination of aluminium and aluminium alloy wrought products, forging stock and forgings*<sup>1)</sup>

EN 2716, *Aerospace series — Test method — Determination of susceptibility to intergranular corrosion — Wrought aluminium alloy products — AL-P2XXX- series, AL-P7XXX- series and aluminium-lithium alloys*<sup>1)</sup>

---

1) Published as ASD-STAN Prestandard at the date of publication of this European Standard by AeroSpace and Defence industries Association of Europe - Standardization (ASD-STAN), <http://www.asd-stan.org>

2) In preparation at the date of publication of this European Standard.

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

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-