



SLOVENSKI STANDARD
SIST EN 603-2:2024

01-november-2024

Aluminij in aluminijeve zlitine - Valjani material za kovanje - 2. del: Mehanske lastnosti

Aluminium and aluminium alloys - Wrought forging stock - Part 2: Mechanical properties

Aluminium und Aluminiumlegierungen - Stranggepresstes oder gewalztes Schmiedevormaterial - Teil 2: Mechanische Eigenschaften

Aluminium et alliages d'aluminium - Produits corroyés destinés à la forge - Partie 2: Caractéristiques mécaniques

Ta slovenski standard je istoveten z: EN 603-2:2024

[SIST EN 603-2:2024](https://standards.iteh.ai/standards/sist/7a41aa12-2b00-4ac5-8509-8980d9c91471/sist-en-603-2-2024)

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ICS:

77.150.10 Aluminijski izdelki Aluminium products

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EUROPEAN STANDARD

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English Version

Aluminium and aluminium alloys - Wrought forging stock - Part 2: Mechanical properties

Aluminium et alliages d'aluminium - Produits corroyés
destinés à la forge - Partie 2 : Caractéristiques
mécaniques

Aluminium und Aluminiumlegierungen -
Stranggepresstes oder gewalztes
Schmiedevormaterial - Teil 2: Mechanische
Eigenschaften

This European Standard was approved by CEN on 14 July 2024.

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.

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

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European foreword

This document (EN 603-2:2024) has been prepared by Technical Committee CEN/TC 132 “Aluminium and aluminium alloys”, the secretariat of which is held by AFNOR.

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 March 2025, and conflicting national standards shall be withdrawn at the latest by March 2025.

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 603-2:1996.

EN 603-2:2024 includes the following significant technical changes with respect to EN 603-2:1996:

- application of last CEN template to the introductory text of Clause 2 Normative references;
- replacement of withdrawn standard EN 10002-1 by EN ISO 6892-1 in Clause 2 Normative references;
- application of last CEN template to Clause 3 Terms and definitions;
- introduction of Standard EN ISO 6892-1 instead of withdrawn standard EN 10002-1 in Clause 4 Tensile testing;
- move of former text from Note in Table 9 to Clause 6;
- introduction of mechanical properties for alloy EN AW-2033 in new Table 3;
- introduction of mechanical properties for alloy EN AW-2077 in new Table 4;
- introduction of mechanical properties for alloy EN AW-6026 in new Table 7;
- minor text changes.

EN 603 comprises the following parts under the general title *Aluminium and aluminium alloys - Wrought forging stock*:

- *Part 1: Technical conditions for inspection and delivery;*
- *Part 2: Mechanical properties;*
- *Part 3: tolerances on dimensions and form.*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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

EN 603-2:2024 (E)

1 Scope

This document, part of EN 603 series of standards, specifies the mechanical properties of wrought forging stock in aluminium and aluminium alloys for general engineering applications.

The chemical composition and temper designations for these alloys are specified in EN 573-3 and EN 515 respectively.

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

EN ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1)*

3 Terms and definitions

For the purposes of this document, the following definition applies.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

section size

t

minor sectional dimension, i.e. diameter for extruded round bar, width across flats for extruded square bar and thickness for extruded rectangular section

4 Tensile testing

For the selection of specimens and preparation of test pieces, see EN 603-1.

Tensile testing shall be carried out in accordance with EN ISO 6892-1.

5 Mechanical properties

5.1 Extruded forging stock

Extruded forging stock is normally supplied in the F or H112 temper condition.

Testing to determine mechanical properties of extruded forging stock shall be undertaken only when requested by the purchaser and specified on the order (see EN 603-1).

In instances where tensile testing is specified on extruded forging stock in heat treatable alloys, the specimen selected for test shall be heat treated in accordance with the recommended practice for the temper condition of final use.

The mechanical properties of aluminium alloys are specified in Tables 1 to 9.

Test results shall be rounded in accordance with the rules given in Annex A.