INTERNATIONAL STANDARD

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Fifth edition
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Wrought aluminium and aluminium alloys — Extruded rods/bars, tubes and profiles —

Part 2: Mechanical properties

Aluminium et alliages d'aluminium corroyés — Barres, tubes et profilés filés —

Partie 2: Caractéristiques mécaniques

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 6, *Wrought aluminium and aluminium alloys*.

This fifth edition cancels and replaces the fourth edition (ISO 6362-2:2014), which has been technically revised. The main changes are as follows:

— in Clause 5, ISO 6362-7 and ISO 2107 have been added as references for the alloys and tempers listed in this document;

— in Clause 5, alloys 2033, 3021 and 6026 have been added in Table 1;

— in Clause 5, tensile strength and 0,2 % proof stress of alloy 6061 have been aligned between Tables 1 and 3;

— in Clause 5, 0,2 % proof stress of alloy 6063 has been aligned between Tables 1 and 3;

— errors have been corrected and expressions modified throughout.

A list of all parts in the ISO 6362 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Wrought aluminium and aluminium alloys — Extruded rods/bars, tubes and profiles —

Part 2: Mechanical properties

1 Scope

This document specifies the mechanical properties of wrought aluminium and aluminium alloy extruded rods/bars, tubes, and profiles for general engineering applications.

It is applicable to extruded products.

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.

ISO 6362-1, *Wrought aluminium and aluminium alloys — Extruded rods/bars, tubes and profiles — Part 1: Technical conditions for inspection and delivery*

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

ASTM B557M, *Standard Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6362-1 apply.

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/

4 Tensile testing

The selection of the specimens and tensile testing shall be in accordance with ISO 6892-1 or ASTM B557M.

5 Mechanical properties

Values for mechanical properties of aluminium and aluminium alloys are given in Tables 1 to 3.

For elongation, two different gauge lengths are used. The choice of the gauge length for elongation measurements (A or A_{50mm}) is at the discretion of the producer, unless otherwise agreed.

NOTE A is the percentage elongation on a gauge length of $5{,}65\sqrt{S_o}$. A_{50mm} is the percentage elongation on a gauge length of 50 mm.