
**Wrought aluminium and aluminium
alloys — Cold-drawn rods/bars and
tubes and wires —**

**Part 2:
Mechanical properties**

*Aluminium et alliages d'aluminium corroyés — Barres, tubes et fils
étirés à froid —*

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 6363-2 was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 6, *Wrought aluminium and aluminium alloys*.

This second edition cancels and replaces the first edition (ISO 6363-2:1993) which has been technically revised.

ISO 6363 consists of the following parts, under the general title *Wrought aluminium and aluminium alloys — Cold-drawn rods/bars, tubes and wires*:

- *Part 1: Technical conditions for inspection and delivery*
- *Part 2: Mechanical properties*
- *Part 3: Drawn round bars and wires — Tolerances on form and dimensions (symmetric plus and minus tolerances on diameter)*
- *Part 4: Drawn rectangular bars and wires — Tolerances on form and dimensions*
- *Part 5: Drawn square and hexagonal bars and wires — Tolerances on form and dimensions*
- *Part 6: Drawn round tubes — Tolerances on form and dimensions*

Wrought aluminium and aluminium alloys — Cold-drawn rods/bars and tubes and wires —

Part 2: Mechanical properties

1 Scope

This part of ISO 6363 specifies the mechanical properties of wrought aluminium and aluminium alloy rods/bars, tubes and wires for general engineering applications (except aeronautical rivets).

It applies to products which are extruded and then cold drawn.

It does not apply to:

- products which are rolled and then cold drawn, including seam-welded tubes;
- forging stock, wire for drawing stock;
- drawn wires for aeronautical application, electrical or welding purposes.

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.

ISO 6363-1, *Wrought aluminium and aluminium alloys — Cold-drawn rods/bars, tubes and wires — 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 6363-1 apply.

4 Tensile testing

For the selection of the specimens and tensile testing, use ISO 6892-1 or ASTM B557M.

5 Mechanical properties

Values for mechanical properties of aluminium and aluminium alloys are given in Tables 1 and 2.

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

NOTE A is the percentage elongation on a gauge length of $5,65 \sqrt{S_0}$. $A_{50\text{mm}}$ is the percentage elongation on a gauge length of 50 mm.