

---

---

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

**Part 5:  
Tolerances on form and dimensions  
for drawn square and hexagonal bars  
and wires**

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

*Partie 5: Tolérances sur forme et dimensions pour barres carrées et  
hexagonales et fils étirés*



This document is a preview generated by EUS



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b>	<b>iv</b>
<b>1 Scope</b>	<b>1</b>
<b>2 Normative references</b>	<b>1</b>
<b>3 Terms and definitions</b>	<b>1</b>
<b>4 Tolerances on form and dimensions</b>	<b>1</b>
4.1 Tolerances on width across flats	1
4.2 Fixed-length tolerances	3
4.3 Squareness of cut ends	3
4.4 Corner radii	3
4.5 Form tolerances	3
4.5.1 General	3
4.5.2 Straightness tolerances	3
4.5.3 Convexity-concavity	4
4.5.4 Twist tolerances	4
4.5.5 Squareness tolerances	5

## 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](http://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](http://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](http://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 third edition cancels and replaces the second edition (ISO 6363-5:2012), which has been technically revised. The main changes are as follows:

- errors have been corrected and expressions modified throughout.

A list of all parts in the ISO 6363 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](http://www.iso.org/members.html).

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

## Part 5:

## Tolerances on form and dimensions for drawn square and hexagonal bars and wires

### 1 Scope

This document specifies the tolerances on form and dimensions of wrought aluminium and aluminium alloy drawn square and hexagonal bars and wires with widths across flats up to and including 100 mm.

For wires, this document does not apply to electrical, welding and aeronautical purposes.

For drawn bars, 4.1 to 4.5 apply, and only 4.1 applies to drawn wires.

### 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 6363-1, *Wrought aluminium and aluminium alloys — Cold-drawn rods/bars, tubes and wires — Part 1: Technical conditions for inspection and delivery*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6363-1 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 Tolerances on form and dimensions

#### 4.1 Tolerances on width across flats

Tolerances on width across flats shall be in accordance with the plus and minus tolerances or the minus tolerance given in Table 1. The choice of tolerances depends on the agreement between the purchaser and the supplier.