

Aluminium and aluminium alloys — Drawn wire

Part 3. Tolerances on dimensions

The European Standard EN 1301-3 : 1997 has the status of a
British Standard

ICS 77.150.10

National foreword

This British Standard is the English language version of EN 1301-3 : 1997. Together with Parts 1 and 2, it supersedes BS 1475 : 1972.

The UK participation in its preparation was entrusted to Technical Committee NFE/35/5, Wrought aluminium and aluminium alloys, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 4, an inside back cover and a back cover.

Amendments issued since publication

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English version

Aluminium and aluminium alloys — Drawn wire — Part 3: Tolerances on dimensions

Aluminium et alliages d'aluminium —
Fil étiré —
Partie 3: Tolérances sur dimensions

Aluminium und Aluminiumlegierungen —
Gezogene Drähte
Teil 3: Grenzabmaße

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Standard 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of an identical text or by endorsement, at the latest by January 1998, and conflicting national standards shall be withdrawn at the latest by January 1998.

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 4, Wires and drawing stock, to prepare the following standard:

EN 1301-3 *Aluminium and aluminium alloys — Drawn wire — Part 2: Tolerances on dimensions*

This standard is a Part of a set of three standards. The other standards deal with:

EN 1301-1 *Aluminium and aluminium alloys — Drawn wire — Part 1: Technical conditions for inspection and delivery*

EN 1301-2 *Aluminium and aluminium alloys — Drawn wire — Part 2: Mechanical properties*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This Part of EN 1301 specifies the tolerances on dimensions of aluminium and aluminium alloy drawn wire for general engineering applications including rivet manufacture (except aeronautical rivets), covering diameters, thicknesses or widths across flats up to and including 20 mm.

It applies to drawn wires, except for welding and electrical purposes.

It does not apply to drawing stock.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 1301-1 *Aluminium and aluminium alloys — Drawn wire — Part 1: Technical conditions for inspection and delivery*

3 Tolerances on dimensions

The conditions for the sampling and the measurement of dimensions shall be in accordance with EN 1301-1.

The tolerances on dimensions of drawn wires depend on its cross-section. They are specified in tables 1 to 3. All dimensions and tolerances are specified in millimetres.

3.1 Round wire

Dimensions in millimetres			
Specified diameter		Tolerance	
Over	Up to and including	General purpose wire	Rivet wire
—	1	± 0,02	⁰ - 0,03
1	3	± 0,03	⁰ - 0,04
3	6	± 0,04	⁰ - 0,05
6	10	± 0,05	⁰ - 0,06
10	15	± 0,07	⁰ - 0,08
15	20	± 0,11	⁰ - 0,12

The ovality, defined as the difference between the maximum and the minimum diameter measured on a same cross-section, shall not exceed 50 % of the total tolerance.

3.2 Square and hexagonal wire

Dimensions in millimetres		
Width across flats		Tolerance
Over	Up to and including	
—	3	± 0,04
3	6	± 0,05
6	10	± 0,07
10	15	± 0,10
15	20	± 0,14

Deviations from the regular polygonal shape are included in the specified tolerances. Distortions of the cross-section due to winding or unwinding operations are not covered by this standard.

3.3 Rectangular wire

Dimensions in millimetres			
Thickness or width		Tolerance	
Over	Up to and including	Thickness	Width
—	1	± 0,03	± 0,04
1	3	± 0,04	± 0,05
3	6	± 0,05	± 0,07
6	10	± 0,07	± 0,10
10	15	± 0,10	± 0,14
15	20	± 0,14	± 0,18

Deviations from the rectangular shape are included in the specified width tolerances. Distortions of the cross-section owing to winding or unwinding are not covered by this standard.

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