

AS/NZS 1567:2023



Australian/New Zealand Standard™

Copper and copper alloys — Wrought rods, bars and sections



AS/NZS 1567:2023

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- Australian Industry Group
- Australian Plumbing Manufacturers Association
- Consumer Electronics Suppliers Association
- Housing Industry Association
- International Copper Association Australia
- Joint Accreditation System of Australia & New Zealand
- Master Plumbers, Gasfitters and Drainlayers New Zealand
- Plastics Industry Pipe Association of Australia
- Plumbing Products Industry Group
- Water Services Association of Australia
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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MT-002, Copper and Copper Alloys, to supersede AS/NZS 1567:1997.

The objective of this document is to specify requirements for wrought copper and copper alloy rods, bars and sections, including hollow sections, having a diameter or width across flats of not less than 1.6 mm, for machining and general purposes other than forging.

The major changes in this edition are as follows:

- (a) The compositional range for listed alloys has been removed and replaced with a reference to AS 2738.
- (b) The known mechanical property tables have been moved to [Appendix B](#).
- (c) The stress corrosion cracking test listed under [Clause 9](#) has been changed from the mercurous nitrate test specified in AS 2136 to the ammonium chloride test specified in ISO 6957.
- (d) [Clause 12](#), “Microstructure of alloy C68600”, has been added.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a document, whereas an “informative” appendix or annex is only for information and guidance.

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NOTES

Australian/New Zealand Standard

Copper and copper alloys — Wrought rods, bars and sections

1 Scope

This document specifies requirements for wrought copper and copper alloy rods, bars and sections, including hollow sections, having a diameter or width across flats of not less than 1.6 mm, for machining and general purposes other than forging.

NOTE Advice and recommendations on information to be supplied at the time of enquiry or order are contained in the purchasing guidelines set out in [Appendix A](#).

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.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 1391, *Metallic materials — Tensile testing — Method of test at room temperature*

AS 1515 (all parts), *Copper alloys*

AS 1696.1, *Copper—Determination of phosphorus—Spectrophotometric method*

AS 1696.2, *Copper, Part 2: Determination of copper content—Electrogravimetric method*

AS 1816.1, *Metallic materials—Brinell hardness test, Method 1: Test method (ISO 6506-1:2005, MOD)*

AS 1817.1, *Metallic materials—Vickers hardness test, Method 1: Test method (ISO 6507-1:1997, MOD)*

AS 2345, *Dezincification resistance of copper alloys*

AS 2505.2, *Metallic materials, Method 2: Bars, rods and solid shapes—Bend tests*

AS 2614, *Copper and copper alloys—Sampling for chemical and spectrochemical analysis, and physical testing*

AS 2706, *Numerical values—Rounding and interpretation of limiting values*

AS 2738, *Copper and copper alloys—Compositions and designations of refinery products, wrought products, ingots and castings*

AS 2883, *Analysis of metals—Procedures for the setting up, calibration and standardization of atomic emission spectrometers using arc/spark discharge*

AS 3641.1, *Recommended practice for atomic emission spectrometric analysis, Part 1: Principles and techniques*

AS/NZS 3500.0, *Plumbing and drainage, Part 0: Glossary of terms*

IEC 60468, *Method of measurement of resistivity of metallic materials*

ASTM E478, *Standard Test Methods for Chemical Analysis of Copper Alloys*

BS 1748 (all parts), *Methods for the analysis of copper alloys*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in AS/NZS 3500.0 and the following apply.

3.1**bar**

rectangular or square solid product supplied in straight lengths

3.2**batch**

material of the same alloy, temper and shape from the same manufacturing run

3.3**hollow**

hole through the cross-section of a rod, bar or section producing a minimum wall thickness of 3 mm

3.4**may**

indicates the existence of an option

3.5**rod**

round, hexagonal or octagonal solid product supplied in straight lengths

3.6**section**

solid shape other than round, hexagonal, octagonal, square or rectangular, supplied in straight lengths

3.7**shall**

indicates that a statement is mandatory

3.8**should**

indicates a recommendation

4 Designation

4.1 Alloy designation

The designation or method of defining copper shall comprise the number of this document, i.e. AS/NZS 1567, followed by a slash and six additional characters commencing with the letter C, in accordance with the Unified Numbering System (UNS).

The suffix letter A indicates a deviation in chemical composition from the corresponding UNS composition.

EXAMPLE AS/NZS 1567/C69300, AS/NZS 1567/C48600A.

4.2 Temper designation

The temper designation shall comprise one of the following characters:

M = as manufactured.

O = annealed (soft condition).

1/2H = half-hard (intermediate work-hardened condition).

H = hard (fully work-hardened condition).

EXAMPLE AS/NZS 1567/C10200-H.