AS 1566—1997
Reconfirmed 2018

Australian Standard®

Copper and copper alloys—Rolled flat products

This Australian Standard was prepared by Committee MT/2, Copper and Copper Alloys. It was approved on behalf of the Council of Standards Australia on 1 August 1997 and published on 5 December 1997.

The following interests are represented on Committee MT/2:

AUSTAP

Australian Forging Group

Hunter Water Corporation

Metal Trades Industry Association of Australia

Welding Technology Institute of Australia

Additional interests participating in preparation of Standard:

Rolling mills

Product manufacturers

This Standard was issued in draft form for comment as DR 96267.

STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 1566–1997
Copper and copper alloys–Rolled flat products

RECONFIRMATION NOTICE

Major stakeholders of this publication have reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

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NOTES

Australian Standard®

Copper and copper alloys—Rolled flat products

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MT/2, Copper and Copper Alloys, to supersede AS 1566—1985.

This Standard is the result of a consensus among Australian and New Zealand representatives on the Joint Committee to produce it as an Australian Standard.

The objective of this revision is to upgrade the requirements for copper and copper alloy plate, rolled bar, sheet, strip and foil for general engineering purposes.

In this edition the alloy designations have been changed from the three-digit numbering system to the Unified Numbering System (UNS) comprising five digits preceded by the letter C.

During the preparation of this Standard cognizance was taken of the following International Standards:

ISO

1634 Wrought copper and copper alloy plate, sheet and strip

1634.1 Part 1 (1987): Technical conditions of delivery for plate, sheet and strip for general purposes

1634.2 Part 2 (1987): Technical conditions of delivery for plate and sheet for boilers, pressure vessels and heat-exchangers

1634.3 Part 3 (1987): Technical conditions of delivery for wrought copper alloy strip for springs

3486—1980 Wrought copper and copper alloys—Cold-rolled flat products delivered in straight lengths (sheet)—Dimensions and tolerances

3487—1980 Wrought copper and copper alloys—Cold-rolled flat products in coils or on reels (strip)—Dimensions and tolerances

The preference of Australian industry is to contain the requirements for copper and copper alloy flat products in the one volume. These International Standards, as a group, cover the subject; however, ISO 1634.1 refers to seven other Standards for chemical compositions and employs alloy and temper designations that are not commonly used in Australia.

Currently no copper or copper alloys are being hot-rolled in Australia. It is common practice to directly cold roll the product of a continuous casting process. If the product is in ingot form, it is extruded into a suitable form prior to cold rolling.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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1 SCOPE This Standard specifies requirements for copper and copper alloy plate, rolled bar, sheet, strip and foil for general engineering purposes. It also specifies requirements for copper for electrical purposes (alloys C11000 and C12200) and automotive radiators (alloy C14410).

NOTE: Advice and recommendations on information to be supplied at the time of inquiry or order are contained in the purchasing guidelines set out in Appendix A.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
1391 Methods for tensile testing of metals
1515 Copper alloys (all parts)
1696 Copper
1696.1 Part 1: Determination of phosphorus—Spectrophotometric method
1733 Methods for the determination of grain size in metals
1817 Metallic materials—Vickers hardness test
2338 Preferred dimensions of wrought metal products
2505 Methods for bend and related testing of metals
2505.1 Part 1: Sheet, strip and plate
2614 Copper and copper alloys—Sampling for chemical analysis and electrical resistivity
2706 Numerical values—Rounding and interpretation of limiting values

BS
1748 Methods for the analysis of copper alloys (all parts)
5714 Method of measurement of resistivity of metallic materials

ASTM
E 53 Test methods for chemical analysis of copper
E 384 Test method for microhardness of materials

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Foil—a rolled flat product of any width and having a thickness of up to and including 0.15 mm.

3.2 Hot-rolled finish—a coarse oxidized finish produced by hot rolling.

3.3 Plate—a rolled flat product that is over 3.2 mm thick and over 300 mm wide.

3.4 Rolled bar—a rectangular solid section that is over 3.2 mm thick and up to and including 300 mm wide.

3.5 Sheet—a rolled flat product having a thickness greater than 0.15 mm and up to and including 3.2 mm, and a width greater than 450 mm. Sheet can be in coil form.

3.6 Strip—a rolled flat product, other than flat wire, having a thickness greater than 0.15 mm and up to and including 3.2 mm, and a width up to and including 450 mm.