

Australian Standard®

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**Hot-rolled steel flat products**

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This Australian Standard was prepared by Committee MT/1, Iron and Steel. It was approved on behalf of the Council of Standards Australia on 21 October 1991 and published on 17 January 1992.

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The following interests are represented on Committee MT/1:

Australian Chamber of Manufactures  
Australian Foundry Institute  
Australian Institute of Steel Construction  
Bureau of Steel Manufacturers of Australia  
Confederation of Australian Industry  
Department of Defence  
Metal Trades Industry Association of Australia  
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**STANDARDS AUSTRALIA**

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**Amendment No. 1  
to  
AS 1594—1992  
Hot-rolled steel flat products**

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**REVISED TEXT**

The 1992 edition of AS 1594 is amended as follows; the amendments should be inserted in the appropriate place.

*SUMMARY:* This Amendment applies to Tables 2.2, 2.3 and 3.1.

Published on 14 June 1993.

## PREFACE

This Standard was prepared by the Standards Australia Committee on Iron and Steel at the request of Australian industry, to supersede AS 1594—1989.

This edition incorporates recent changes which have occurred in the flat products area of the Australian steel industry. It includes Amendment No. 1 (1990), and permits the use of micro-alloyed steels.

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## STANDARDS AUSTRALIA

### Australian Standard Hot-rolled steel flat products

#### SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE** This Standard specifies requirements for hot-rolled steel plate, floorplate, sheet and strip, rolled on a continuous mill, in thicknesses up to 13 mm and widths up to 2000 mm. It includes slit material, provided that the parent material has an as-rolled width of not less than 600 mm.

The Standard specifies the following grade requirements:

- |   |  |
|---|--|
| (a) For analysis grades:  | chemical composition only.                           |
| (b) For formability grades, extra formability grades, and structural grades including weather-resistant grades: | both chemical composition and mechanical properties. |
| (c) For floorplate:   | both chemical composition and mechanical properties. |

The Standard permits the addition of boron and micro-alloying elements for the achievement of special properties.

#### NOTES:

1 This Standard does not cover the following—

- (a) steel plate for boilers and pressure vessels (see AS 1548); and
- (b) hot-rolled structural steel plates, floorplates and slabs (see AS 3678).

2 Advice and recommendations on information to be supplied by the purchaser at the time of enquiry or order are contained in the purchasing guidelines set out in Appendix A.

3 Alternative means for demonstrating compliance with this Standard are given in Appendix B.

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

#### AS

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|--------|--|
| 1050   | Methods for the analysis of iron and steel   |
| 1199   | Sampling procedures and tables for inspection by attributes                              |
| 1213   | Iron and steel—Methods of sampling   |
| 1365   | Tolerances for flat-rolled steel products  |
| 1391   | Methods for tensile testing of metals  |
| 1399   | Guide to AS 1199—Sampling procedures and tables for inspection by attributes             |
| 1548   | Steel plates for boilers and pressure vessels  |
| 2338   | Preferred dimensions of wrought metal products   |
| 2505   | Methods for bend and related testing of metals   |
| 2505.1 | Part 1: Sheet, strip and plate   |
| 2706   | Numerical values—Rounding and interpretation of limiting values                          |
| 3678   | Structural steel—Hot-rolled plates, floorplates and slabs                                |
| 3900   | Quality systems—Guide to selection and use   |
| 3904   | Quality management and quality system elements   |
| K1     | Methods for the sampling and analysis of iron and steel                                  |
| ISO    |  |
| Guide  |  |
| 44     | General rules for ISO or IEC international third-party certification scheme for products |

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

**1.3.1 Ageing**—a term applied to changes in physical and mechanical properties of low carbon steel that occur with the passage of time, and which adversely affect formability. Ageing accelerates as the temperature is raised.

**1.3.2 Cast analysis**—a chemical analysis determined on a test sample taken during the casting of the liquid steel (see Clause 2.3.2).