AS 1594—1992

Australian Standard®

Hot-rolled steel flat products

STANDARDS AUSTRALIA

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.

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

Railways of Australia Committee

Society of Automotive Engineers Australasia

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First published in part as AS G2—1945.
AS G2—1945 revised and redesignated
AS G16—1967.
AS G33 first published 1971.
Part of AS G16—1967 and AS G33—1971 revised,
amalgamated and redesignated AS 1594—1974.
Second edition 1981.
Third edition 1989.
Fourth edition 1992.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY NSW
ISBN 0 7262 7166 7

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

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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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
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).