

Australian/New Zealand Standard™

Structural steel

Part 1: Hot-rolled bars and sections



AS/NZS 3679.1:2010

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee BD-023, Structural Steel. It was approved on behalf of the Council of Standards Australia on 25 June 2010 and on behalf of the Council of Standards New Zealand on 25 June 2010.

This Standard was published on 20 July 2010.

The following are represented on Committee BD-023:

Austrroads
Association of Consulting Engineers Australia
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Steel Institute
Bureau of Steel Manufacturers of Australia
Business New Zealand
New Zealand Heavy Engineering Research Association
Steel Construction New Zealand
The University of Melbourne
The University of New South Wales
The University of Sydney

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.saiglobal.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 07234.

AS/NZS 3679.1:2010

Australian/New Zealand Standard™

Structural steel

Part 1: Hot-rolled bars and sections

Originated in Australia as for of AS A1—1925.
Previous edition AS/NZS 3679.1:1996.
Third edition 2010.

COPYRIGHT

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6140

ISBN 978 0 7337 9637 1

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee BD-023, Structural Steel, to supersede AS/NZS 3679.1:1996.

The objective of this Standard is to specify requirements for hot-rolled structural steel bars and sections for general structural and engineering applications.

This edition incorporates the following major changes to the previous edition:

- (a) The definition of a batch has been clarified.
- (b) A new grade S0, which complies with the seismic material requirements in NZS 3404.
- (c) Redundant grades 250, 250L0, 250L15, 400, 400L0, 400L15 have been removed.
- (d) References to tapered-flange channels have been removed.
- (e) The new requirement for individual length markings.
- (f) The new requirement for test reports and test certificates to be performed by third-party accredited laboratories.
- (g) The introduction of mandatory minimum information required on test certificates.
- (h) The inclusion of Appendix B on 'Product Conformity' as a mandatory provision for conformance with this Standard.
- (i) Appendix F—Steel for seismic and fracture critical applications for New Zealand only has been added.

To permit the steel industry time to adjust to the new edition of the Standard, the 1996 version of AS/NZS 3679.1 will remain available superseded and will be withdrawn 12 months from the date of publication of this Standard.

A statement expressed in mandatory terms in a note to a table is deemed to be a requirement of this Standard.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

CONTENTS

	<i>Page</i>
1 SCOPE.....	4
2 NORMATIVE REFERENCES	4
3 DEFINITIONS.....	5
4 DESIGNATION.....	6
5 STEEL MANUFACTURING PROCESS	7
6 CHEMICAL COMPOSITION	7
7 MANUFACTURING TOLERANCES.....	7
8 FREEDOM FROM DEFECTS.....	8
9 TESTING.....	9
10 MECHANICAL PROPERTIES	10
11 IDENTIFICATION, TEST CERTIFICATES AND INDEPENDENT TESTS	11
12 ROUNDING OF NUMBERS.....	12
 APPENDICES	
A PURCHASING GUIDELINES.....	25
B PRODUCT CONFORMITY	27
C COLD-BENDING OF ROUNDS, FLATS AND SQUARES DURING FABRICATION	30
D DIMENSIONS.....	31
E MEASUREMENT OF CAMBER AND SWEEP IN UNIVERSAL SECTIONS	39
F STEEL FOR SEISMIC AND FRACTURE CRITICAL APPLICATIONS (NEW ZEALAND ONLY).....	40
 BIBLIOGRAPHY	 41

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-