

Australian Standard™

**Freight containers**

**Part 6: Tank containers**

[Modified and including the full text of ISO 1496-3:1995]

This Australian Standard was prepared by Committee ME/68, Freight Containers. It was approved on behalf of the Council of Standards Australia on 31 August 1999 and published on 24 January 2000.

---

The following interests are represented on Committee ME/68:

Australasian Railway Association  
Australian Chamber of Shipping  
Australian Maritime Safety Authority  
AUSTROADS  
Department of Defence (Australia)  
Germanischer Lloyd  
National Freight Forwarders Association  
National Road Transport Commission

---

#### **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 Standards may also be withdrawn.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 Standards can be found by visiting the Standards Australia web site at [www.standards.com.au](http://www.standards.com.au) and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for the improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.com.au](mailto:mail@standards.com.au), or write to the Chief Executive, Standards Australia International Ltd. PO Box 1055, Strathfield., NSW 2135.

---

Australian Standard™

**Freight containers**

**Part 6: Tank containers**

Originated as AS 1727—1975 and AS 2553—1982.  
Final edition AS/NZS 3711.6:1993.  
Revised and designated AS 3711.6—2000.

**COPYRIGHT**

© Standards Australia International

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.

Published by Standards Australia International Ltd  
PO Box 1055, Strathfield, NSW 2135, Australia

ISBN 0 7337 2936 3

## PREFACE

This Standard was prepared by the Standards Australia Committee ME/68, Freight Containers to supersede AS/NZS 3711.6:1993. It has been adopted with national modifications and has been reproduced from ISO 1496-3:1995, *Series 1 freight containers—Specification and testing*, Part 3: *Tank containers for liquids, gases and pressurized dry bulk*.

This Standard is Part 6 in the AS or AS/NZS 3711, *Freight containers* series. The series comprises—

AS 3711.1	Part 1: Classification, dimensions and ratings
AS/NZS 3711.2	Part 2: Terminology
AS/NZS 3711.3	Part 3: Corner fittings
AS/NZS 3711.4	Part 4: General purpose containers
AS 3711.5	Part 5: Thermal containers
AS 3711.6	Part 6: Tank containers
AS/NZS 3711.7	Part 7: Dry bulk containers
AS 3711.8	Part 8: Platform containers
AS 3711.9	Part 9: Coding, identification and marking
AS 3711.10	Part 10: Handling and securing

Changes since the last edition include the following:

- (a) Changes introduced in ISO 1496-3:1995.
- (b) Modifications to series R container requirements.

The number of this Standard is not reproduced on each page. Its identity is shown only on the cover and the title page.

For the purposes of this Standard, the text of ISO 1496-3 should be modified as follows:

- (i) Substitute ‘this Australian Standard’ for ‘this part of ISO 1496’ wherever it occurs.
- (ii) Substitute a full point (.) for a comma (,) as a decimal marker.
- (iii) Variations between ISO 1496-3 and this Joint Standard, for application in Australia only, are set out in Appendix ZZ. These variations are indicated by a marginal bar against each clause, table, figure or part thereof affected.
- (iv) Replace references to other publications by references to Australian or Australian/New Zealand Standards as follows:

<i>Reference to International Standard</i>		<i>Australian or Australian/New Zealand Standard</i>	
ISO		AS	
668	Series 1 freight containers— Classification, dimensions and ratings	3711	Freight containers
		3711.1	Part 1: Classification, dimensions and ratings
		AS/NZS	
830	Freight containers— Terminology	3711.2	Part 2: Terminology
1161	Series 1 freight containers—Corner fittings—Specification	3711.3	Part 3: Corner fittings
		AS	
6346	Freight containers—Coding, identification and marking	3711.9	Part 9: Coding, identification and marking

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

## CONTENTS

	<i>Page</i>
<b>1</b> Scope .....	<b>1</b>
<b>2</b> Normative references .....	<b>1</b>
<b>3</b> Definitions .....	<b>2</b>
<b>4</b> Dimensions and ratings .....	<b>3</b>
<b>4.1</b> External dimensions .....	<b>3</b>
<b>4.2</b> Ratings .....	<b>3</b>
<b>5</b> Design requirements .....	<b>3</b>
<b>5.1</b> General .....	<b>3</b>
<b>5.2</b> Corner fittings .....	<b>4</b>
<b>5.3</b> Base structure .....	<b>4</b>
<b>5.4</b> End structure .....	<b>5</b>
<b>5.5</b> Side structure .....	<b>5</b>
<b>5.6</b> Tank .....	<b>5</b>
<b>5.7</b> Optional features .....	<b>6</b>
<b>6</b> Testing .....	<b>6</b>
<b>6.1</b> General .....	<b>6</b>
<b>6.2</b> Test No. 1 — Stacking .....	<b>7</b>
<b>6.3</b> Test No. 2 — Lifting from the four top corner fittings .....	<b>8</b>
<b>6.4</b> Test No. 3 — Lifting from the four bottom corner fittings .....	<b>8</b>
<b>6.5</b> Test No. 4 — External restraint (longitudinal) .....	<b>9</b>
<b>6.6</b> Test No. 5 — Internal restraint (longitudinal) .....	<b>9</b>
<b>6.7</b> Test No. 6 — Internal restraint (lateral) .....	<b>10</b>
<b>6.8</b> Test No. 7 — Rigidity (transverse) .....	<b>10</b>
<b>6.9</b> Test No. 8 — Rigidity (longitudinal) .....	<b>11</b>
<b>6.10</b> Test No. 9 — Load-transfer area test .....	<b>11</b>

<b>6.11</b>	Test No. 10 — Walkways (where provided) .....	<b>11</b>
<b>6.12</b>	Test No. 11 — Ladders (where provided) .....	<b>12</b>
<b>6.13</b>	Test No. 12 — Pressure test .....	<b>12</b>
<b>7</b>	Identification and marking .....	<b>12</b>

#### **Annexes**

<b>A</b>	Diagrammatic representation of capabilities appropriate to all types and sizes of tank containers, except where otherwise stated	<b>14</b>
<b>B</b>	Details of requirements for load-transfer areas in base structures of containers .....	<b>19</b>
<b>C</b>	Dimensions of gooseneck tunnels (where provided) .....	<b>23</b>
<b>D</b>	Bibliography .....	<b>24</b>

#### APPENDICES

<b>ZZ</b>	VARIATIONS TO ISO 1496-3 FOR AUSTRALIA .....	<b>25</b>
-----------	----------------------------------------------	-----------

## AUSTRALIAN STANDARD

### Freight containers

#### Part 6: Tank containers

#### 1 Scope

**1.1** This part of ISO 1496 specifies the basic specifications and testing requirements for ISO series 1 tank containers suitable for the carriage of gases, liquids and solid substances (dry bulk) which may be loaded or unloaded as liquids by gravity or pressure discharge, for international exchange and for conveyance by road, rail and sea, including interchange between these forms of transport.

**1.2** Except where otherwise stated, the requirements of this part of ISO 1496 are minimum requirements. Tank containers to be used for the carriage of dangerous goods may be subject to additional international and national requirements as applied by competent authorities.

**1.3** The container types covered by this part of ISO 1496 are given in table 1.

**1.4** The marking requirements for these containers shall be in accordance with the principles embodied in ISO 6346.

#### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 1496. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 1496 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 668:1988, *Series 1 freight containers — Classification, dimensions and ratings*.

ISO 830:1981, *Freight containers — Terminology*.

ISO 1161:1984, *Series 1 freight containers — Corner fittings — Specification*.

ISO 6346:1984, *Freight containers — Coding, identification and marking*.