Australian Standard®

STEEL DRUMS

This Australian standard was prepared by Committee PK/1, Metal Containers. It was approved on behalf of the Council of the Standards Association of Australia on 5 August 1986 and published on 6 October 1986.

The following interests are represented on Committee PK/1:

Agricultural and Veterinary Chemicals Association of Australia Ltd
Australian Institute of Packaging
Australian Institute of Petroleum Ltd
Australian Paint Manufacturers Federation
Australian Road Transport Federation
Bureau of Steel Manufacturers of Australia
Canmakers Institute of Australia
Confederation of Australian Industry
Department of Defence
Department of Industrial Relations, NSW
Department of Industry, Technology and Commerce
Insurance Council of Australia Ltd
Metal Trades Industry Association of Australia
Packaging Council of Australia
Railways of Australia Committee

Review of Australian Standards. *To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.*

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

This standard was issued in draft form for comment as DR 84265.

Australian Standard®

STEEL DRUMS

AS K84 first published 1960
AS 1950 first published 1976
AS 1951 first published 1976
AS 2905 first published 1986

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140
ISBN 0 7262 4366 3

PREFACE

This standard was prepared by the Association's Committee on Metal Containers under the direction of the Packaging Standards Board, to supersede AS 1950—1976, Fixed End and Removable End Steel Pails, AS 1951—1976, Fixed End and Removable End Steel Drums and AS K84—1960, All Welded Steel Drums.

In this amalgamated standard drums are classified according to types and performance levels rather than material specification.

CONTENTS

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
STEEL DRUMS

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard specifies stock sizes and performance requirements for steel drums up to 250 L capacity.

For the purpose of this standard, the term drum also includes containers commonly called pails.

NOTE: Appendix A sets out information which should be supplied by the purchaser with an enquiry or order.

1.2 APPLICATION. This standard applies principally to drums for the packaging of contents which require normal protection. Drums manufactured to this standard may also be used for the transportation of compatible dangerous goods if approved and marked in accordance with the requirements of the legislation applicable to the chosen mode of transport. For land transport within Australia, these requirements are as detailed in the Australian Code for the Transport of Dangerous Goods by Road and Rail published as a Periodical Gazette by the Australian Government Publishing Service, Canberra.

1.3 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1349 Bourdon Tube Pressure and Vacuum Gauges

AS 1365 Tolerances for Hot-rolled and Cold-rolled Unalloyed Low Carbon Steels (Coils and Cut Lengths)

AS 1517 Tinplate and Blackplate
Part 1—Sheet
Part 2—Coil

AS 1595 Cold-rolled Unalloyed Low Carbon Steel Sheet and Strip

AS 2400 SAA Packaging Code
Part 1—Glossary of Packaging Terms

AS 2582 Complete, Filled Transport Packages—Methods of Test
2582.3 Stacking, Compression Test
2582.4 Vertical Impact Test by Dropping

AS B201 Rolled Sheet Metal Screw Threads and Associated Threads in Moulded Plastics and Die-cast Materials for General Purposes

US Federal Specification PPP-P-420B—Plugs and Flanges (for drum closures)

The following standards are also relevant:

AS 2348 Guide to the Determination of Optimum Dimensions of Packages for Unit Load Handling

AS 2583 Complete, Filled Transport Packages—Distribution Trials—Information to be Recorded

AS 2584 Complete, Filled Transport Packages—General Rules for the Compilation of Performance Schedules
2584.1—General Principles
2584.2—Quantitative Data

1.4 DEFINITIONS. For the purpose of this standard, the definitions given in AS 2400, Part 1 and the following apply:

1.4.1 Bail—a hoop shaped handle pivoting about the two points (bail ears) of attachment to a drum.

1.4.2 Bail ear—a device fastened to the body of the drum, to hold the ends of a bail.

1.4.3 Capacity—the internal volume of a drum with its closures secured ready for transport.

1.4.4 Capacity, fillable—the capacity of a drum measured to the bottom of the filling opening, when a drum is in its normal filling position. However, for open-head drums the fillable capacity is identical with capacity (see 1.4.3).

1.4.5 Capacity, nominal—the volumetric quantity of contents for which the drum is designed.

1.4.6 Chime—the outer edge or rim of a drum including the end seams (see Fig. 1.1).

1.4.7 Drum, closed-head—a drum which has the head permanently attached by double seaming or some similar method (also called non-removable head drum, see Figs 2.2, 2.3, 2.5, 2.6 and 2.7).

1.4.8 Drum, open-head—a drum which has a fully removable head secured to the body by either a separate locking ring or by integral lugs formed on the cover (also called removable head drum, see Figs 2.1, 2.4 and 2.8).

1.4.9 Filling margin—the difference between fillable capacity and nominal capacity of a drum expressed as a percentage of the nominal capacity as follows:

$$\text{Filling margin} = \frac{\text{Fillable capacity} - \text{Nominal capacity}}{\text{Nominal capacity}} 100\%$$

1.4.10 Friction closure—sealing system consisting of a lid which presses into or onto a ring which is permanently formed in one end of the drum. The lid is held into the ring by the friction forces between the walls of the lid and the ring.

1.4.11 Handle, drop—an accessory attached to the top end of a drum for the purpose of holding or carrying. The drop handle, normally pivoting at its ends and lying flat when not in use, allows stacking of drums.