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Australian Standard®

Transport packaging for dangerous goods—Test methods

This Australian Standard® was prepared by Committee CH-009, Safe Handling of Chemicals.
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The following are represented on Committee CH-009:

- ACCORD Australia
- Agsafe
- Australasian Fire Authorities Council
- Australian Institute of Petroleum
- Australian Paint Manufacturers' Federation
- Consumers Federation of Australia
- Department of Consumer and Employment Protection, WA
- Department of Emergency Services, Qld
- Department of Environment and Conservation, NSW
- Department of the Premier and Cabinet, SA
- Engineers Australia
- New Zealand Chemical Industry Council
- Plastics and Chemicals Industries Association
- Tranz Rail (New Zealand)
- Victorian WorkCover Authority

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Transport packaging for dangerous goods—Test methods

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PREFACE

This Standard was prepared by Standards Australia/Standards New Zealand Committee CH-009, Safe Handling of Chemicals. It is identical with and has been reproduced from ISO 16104:2003, *Packaging—Transport packages for dangerous goods—Test methods*.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

(b) In the source text 'this European Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

(d) Additional defined terms from the UN *Recommendations on the Transport of Dangerous Goods* are provided in Appendix ZA.

(e) Add the following note to Paragraph E.1.9:

This includes any reassessment required by Clauses 7.5 and 7.6.

References to International Standards should be replaced by references to Australian Standards, as follows:

Reference to International Standard		*Australian Standard*	
EN		AS	
22206	Packaging—Complete, filled transport packages—Identification of parts when testing (ISO 2206:1987)	2582	Complete, filled transport packages—Methods of test
		2582.1	Part 1: Identification of parts when testing
22234	Packaging—Compete, filled transport packages—Stacking test using static load (ISO 2234)	2582.3	Part 3: Stacking tests using a static load
EN ISO			
12048	Packaging—Compete filled transport packages—Compression and stacking tests using a compression tester (ISO 12048)	2582.10	Part 10: Compression and stacking tests using a compression tester
2431	Paints and varnishes—Determination of flow time by use of flow cups (ISO 2431)	1580	Paints and related materials—Methods of test
		1580.214.6	Method 214.6: Consistency—ISO flow cups
		AS/NZS ISO	
9001	Quality management systems—Requirements (ISO 9001)	9001	Quality management systems—Requirements
ISO/IEC		AS ISO/IEC	
17025	General requirements for the competence of testing and calibration laboratories	17025	General requirements for the competence of testing and calibration laboratories

Only international references that have been adopted as Australian Standards have been listed.

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

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INTRODUCTION

This Standard was developed to provide requirements and test procedures to meet the multi-modal United Nations Recommendations on the Transport of Dangerous Goods [1] and successful passing of the tests may lead to the allocation of an appropriate packaging mark (e.g. UN, RID/ADR). The UN Recommendations have been developed by the United Nations Committee of Experts on the Transport of Dangerous Goods as a "model regulation" (referred to in this document as the UN Recommendations) in the light of technical progress, the advent of new substances and materials, the exigencies of modern transport systems and, above all, the need to ensure the safety of people, property and the environment. Amongst other aspects, the UN Recommendations cover principles of classification and definition of classes, listing of the principal dangerous goods, general packing requirements, testing procedures, marking, labelling or placarding, and shipping documents. There are in addition special recommendations related to particular classes of goods.

The UN Recommendations are given legal entity by the provisions of a series of international modal agreements and national legislation for the transport of dangerous goods. The international agreements include:

- The European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) (covering most of Europe). [2]

- Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) (covering most of Europe, parts of North Africa and the Middle East). [3]

- The International Maritime Dangerous Goods Code (IMDG Code) (worldwide). [4]

- The International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TIs) (worldwide). [5]

The application of this Standard will need to take account of the requirements of these international agreements and the relevant national regulations for domestic transport of dangerous goods.

Occasionally during adoption as a modal regulation the text has been modified; RID/ADR permit some variations to tests for light gauge metal packagings and these are included in annex A.

The cross references between this Standard, the UN Recommendations and the International Agreements are summarized in annex B.

It is important to note that there will be certain modal differences from the UN Recommendations and that the schedule for revisions of the Recommendations and modal provisions may lead to temporary inconsistencies with this Standard, which is regularly updated to the latest version of the UN Recommendations.

It is noted that success in the tests and the allocation of an official UN mark do not on their own authorize the use of a packaging for any dangerous goods, which are subject to the packing instructions published in the various modal regulations.

This Standard is based on Revision 12 of the UN Recommendations.

AUSTRALIAN STANDARD

Transport packaging for dangerous goods—Test methods

1 Scope

This Standard specifies the design type test requirements for packagings as described in 3.6 of this standard and intended for use in the transport of dangerous goods.

NOTE This Standard should be used in conjunction with one or more of the international regulations set out in the Bibliography.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 22206, *Packaging — Complete filled transport packages — Identification of parts when testing (ISO 2206:1987)*

ISO 2137, *Petroleum products — Lubricating grease and petrolatum — Determination of cone penetration*

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

EN ISO 2431, *Paints and varnishes - Determination of flow time by use of flow caps (ISO 2431:1993, including Technical Corrigendum 1:1994)*

3 Terms and definitions

For the purposes of this European Standard the following terms and definitions apply.

3.1
competent authority

any national regulatory body or authority designated or otherwise recognized as such for any purpose in connection with the regulations specified in the Bibliography

3.2
packaging design type

packaging of one design, size, material and thickness, manner of construction and packing, but may include various surface treatments together with packagings which differ from the design type only in their lesser design height

3.3
liquids and solids

(see annex B)