Australian Standard®

COMPLETE, FILLED TRANSPORT PACKAGES—GENERAL RULES FOR THE COMPILATION OF PERFORMANCE SCHEDULES

Part 1—GENERAL PRINCIPLES

This Australian standard was prepared by Committee PK/12, Physical Testing of Packages and Containers. It was approved on behalf of the Council of the Standards Association of Australia on 27 November 1982 and published on 9 May 1983.

The following interests are represented on Committee PK/12:

Australia Post

Australian Institute of Packaging

Australian and New Zealand Pulp and Paper Industry Technical Association

Confederation of Australian Industry

CSIRO, Division of Chemical Technology

Department of Agriculture, Victoria

Department of Primary Industries, Queensland

Department of Science and Technology

Department of Transport

Packaging Council of Australia

Plastics Institute of Australia Incorporated

Railways of Australia Committee

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PREFACE

This standard was prepared by the Association's Committee on Physical Testing of Packages and Containers. It is technically identical with International Standard ISO 4180/1, drawn up by Technical Committee ISO/TC 122, Packaging. SAA, as the Australian member body of ISO, approved the ISO standard at the ballot stage.

This standard has been prepared in order to fulfil a need of organizations concerned with the compilation of test schedules for complete, filled transport packages.

Such test schedules can be as diverse as the journeys that packages undergo. Accordingly, this standard is intended to set guidelines for the compilation of appropriate test schedules, rather than to provide a rigid framework or to be specified by regulatory or other authorities.

It is expected that, once compiled, a particular test schedule, including the test methods and intensities to be applied, could be the subject of Australian standards or would become a matter for agreement between the parties concerned, e.g. the package designer, the manufacturer of the contents, the transport authority, the customer, the statutory regulating body, or any combination of them.

Except for Clause 2 which contains Australian references, the text of the international standard has been accepted as suitable without deviation, but some terms used in the international standard may not be identical with those used in existing Australian standards. In this connection, reference should be made to AS 2400, Part 1, SAA Packaging Code — Glossary of packaging terms.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

COMPLETE, FILLED TRANSPORT PACKAGES—GENERAL RULES FOR THE COMPILATION OF PERFORMANCE SCHEDULES

PART 1—GENERAL PRINCIPLES

1 SCOPE. This standard establishes general rules to be used for the compilation of performance test schedules for complete, filled transport packages intended for use within any distribution system, whether transported by road, rail, sea, air or inland waterway, or by a combination of these modes of transport.

It states the general principles entailed in compiling test schedules.

It also gives the factors to be considered in assessing the criteria of acceptance of such packages after they have been subjected to a package performance test schedule.

AS 2584.2 incorporates all the quantitative data necessary to establish test intensities and other quantitative features of test schedules.

This standard and AS 2584.2 are intended to be read in conjunction with one another.

NOTE: For the distribution trials of packages containing dangerous goods the relevant regulations for the transport of dangerous goods by road, rail, sea and air must be followed, i.e.—

Australian Code for Transport of Dangerous Goods by Road and Rail

International Air Transport Association's Restricted Articles Regulations

International Maritime Dangerous Goods Code.

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

AS 2400 SAA Packaging Code
Part 1— Glossary of packaging terms

AS 2582 Complete, Filled Transport Packages—Methods of Test
2582.1—Identification of parts when testing
2582.2—Conditioning for testing
2582.3—Stacking, compression test
2582.4—Vertical impact test by dropping
2582.5—Horizontal impact test (modified plane test, pendulum test)
2582.6—Vibration test
2582.7—Low pressure test

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
Part 2—Quantitative data

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

3.1 Performance test schedule—a single laboratory test, or series of tests, intended to ascertain the performance, under working conditions, of the subject under test.

3.2 Single-test schedule—a performance test schedule, compiled of tests all by the same method, if necessary repeated with the same or different intensities and attitudes (see AS 2584.2).

3.3 Multi-test schedule—a performance test schedule compiled from some or all of a series of tests (see AS 2584.2).

3.4 Complete, filled transport package—a package, including contents, prepared for distribution.

3.5 Distribution system—all the operations which take place after a package has been filled and closed, including all handling, transport and storage operations up to and including delivery to the user.

4 DISTRIBUTION SYSTEMS. Distribution systems exist in great variety and complexity, but, however great the complexity, they may be considered to be combinations of a number of simple elements. These simple elements are—

(a) transport of packages from one point to another, with or without change of mode of transport; transport shall be considered to include the loading and unloading operations;
(b) storage.

5 HAZARDS.

5.1 General. During distribution, a transport package is subjected to a number of hazards which may cause damage.

5.2 Cause of Hazards. These hazards are the result of a number of factors, the most important of which are—

(a) the characteristics of the distribution system;
(b) the design of the package, i.e. its dimensions, mass and shape, and integral handling aids (for example handles).

6 TESTS.

6.1 Purpose. Laboratory tests on transport packages aim to simulate or represent the distribution hazards.

6.2 Considerations. Appropriate application of tests requires—

(a) a knowledge of the stresses arising from these hazards;