Australian Standard®

Complete, filled transport packages—Methods of test

Method 14: Water immersion test

PREFACE

This Standard was prepared by Standards Australia Committee PK-012, Physical Testing of Packages and Containers, as an additional part to the AS 2582 series of test methods. It is identical with and has been reproduced from ISO 8474:1986, *Packaging—Complete, filled transport packages—Water immersion test.*

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

(a) Its number does not appear on each page of text and its identity is shown on the cover and title page.

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

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

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

Reference to International Standard		*Australian Standard*	
ISO		AS	
2233	Packaging—Complete, filled transport packages—Conditioning for testing	2582	Complete, filled transport packages—Methods of test
		2582.2	Method 2: Conditioning for testing

NOTES

1 Scope and field of application

This International Standard specifies a test method for the immersion in water of complete, filled transport packages. It may be used to pre-condition a package prior to other tests, to investigate reduction in strength caused by exposure to water or to investigate the protection the package gives to its contents from water immersion. The test is principally intended for packages which are waterproof or which are intended to provide some degree of "waterproofness".

The test is performed on the package as prepared for transport and may form part of a test sequence.

2 Reference

ISO 2233, *Packaging — Complete, filled transport packages — Conditioning for testing.*

3 Principle

Conditioning of the package, followed by complete immersion in water, removal and draining and drying in the conditioning atmosphere. The time of immersion, time of draining and drying and the atmospheric conditions are predetermined.

4 Apparatus

4.1 Test area, conditioned in such a manner that evaporation from the wet package and the surface of the water in the water tank (4.2) do not significantly change the atmospheric conditions.

4.2 Water tank, sufficiently large for the test package to be immersed completely under water with the water level at least 100 mm above the package. The tank shall be designed so that it can be easily filled with water and emptied and the water maintained at the temperature specified in 7.1.

4.3 Immersion equipment to contain the test package loosely. It shall be capable of being lowered and lifted. A cage of appropriate dimensions is suitable for this purpose.

NOTE — Some means of hoisting, for example an electric or manual hoist, may be fitted over the water tank to lower and raise the test package conveniently.

4.4 Rigid grill, capable of supporting the wet test package without deformation and positioned so that air is able to flow freely beneath it. The rods or bars from which it is made shall not occupy more than 10 % of the surface area.

5 Package preparation

The test package shall normally be filled with its intended contents. However, under certain circumstances, simulated or dummy contents may be used, on condition that the dimensions and physical properties of the such contents shall be as close as possible to those of the intended contents.

Ensure that the test package is closed, and labelled or marked normally, as if ready for distribution. If simulated or dummy contents are used, ensure that the normal methods of closure, and labelling or marking are still employed.

6 Conditioning

The package shall be conditioned in accordance with one of the conditions specified in ISO 2233.

7 Procedure

7.1 Fill the tank (4.2) to an appropriate depth with water and ensure that the water temperature is within ± 2 °C of the temperature selected from a range from 5 to 40 °C.