

Australian Standard™

**Methods of test for single sided and
double sided pressure-sensitive
adhesive tape**

**Method 3.2: Ageing properties—
Stability of cellulose tape by accelerated
ageing**



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Australian Paint Manufacturers' Federation
Canmakers Institute of Australia
Department of Defence
Printing Industries Association of Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee PK-025, Packaging Code to supersede AS/NZS 1635.4.2:1995, *Methods of test for pressure-sensitive adhesive tape, Part 4.2: Stability—Accelerated ageing of cellulose tape*.

The objective of this edition is to revise the apparatus and materials used in the test methods of the AS 1635 series.

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STANDARDS AUSTRALIA

Australian Standard

Methods of test for single sided and double sided pressure-sensitive adhesive tape

Method 3.2: Ageing properties—Stability of cellulose tape by accelerated ageing

1 SCOPE

This Standard specifies the method for determining the stability of pressure-sensitive adhesive cellulose tape by observation and measurement of adhesion strength, after accelerated ageing at elevated temperature and humidity.

2 REFERENCE DOCUMENTS

The following documents are referred to in this Standard:

AS

1683 Methods of test for elastomers

1683.15.2 Method 15.2: Durometer hardness

2313 Methods of test for single sided and double sided pressure-sensitive adhesive tape

2313.3.1 Method 3.1: Ageing properties—Accelerated ageing

3 REAGENT

3.1 Isopropynol

Reagent grade, is required.

NOTE: A substitute of isopropynol is acetone, reagent grade.

4 APPARATUS AND MATERIALS

The following apparatus and materials are required:

(a) *Electric oven*

Thermostatically controlled to a temperature of $65 \pm 2^\circ\text{C}$.

(b) *Humidity cabinet*

Providing a relative humidity of $80 \pm 5\%$ at a temperature of $65 \pm 2^\circ\text{C}$ with no condensation on the test panels. Alternatively, a desiccator or other suitable vessel containing a saturated solution of ammonium sulfate may be used to provide an atmosphere of approximately 80% relative humidity when maintained at a temperature of $65 \pm 2^\circ\text{C}$ in a suitably regulated electric oven.

(c) *Stainless steel panels*

Approximately 50 mm wide, at least 125 mm long, and approximately 1.5 mm thick and finished in the lengthwise direction to a bright annealed finish which has a surface finish of $0.04 \mu\text{m}$. A minimum of two panels is required.