

Australian Standard™

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

**Method 3.1: Ageing properties—
Accelerated ageing**

STANDARDS
Australia



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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 1635.4.1—1993, *Methods of test for pressure-sensitive adhesive tape, Part 4.1: Stability of tape other than cellulose tape—Accelerated ageing*.

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

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STANDARDS AUSTRALIA

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

Method 3.1: Ageing properties—Accelerated ageing

1 SCOPE

This Standard specifies the method for determining the deterioration of pressure-sensitive adhesive tape, other than cellulose tape, as measured by adhesive strength, and observation of any changes in adhesive properties, after simulating 12 months' natural ageing in roll form.

2 REFERENCED 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

2193 Calibration and clarification of force measuring systems

3 REAGENT**3.1 Isopropynol**

Reagent grade is required.

NOTE: Acetone, reagent grade may also be used.

4 APPARATUS AND MATERIALS

The following apparatus and materials are required:

(a) Tension testing machine

Complying with the requirements of AS 2193 for Grade B machines over suitable load ranges, and having a moving jaw or carriage with a rate of travel of 300 ± 10 mm/min.

(b) Electric oven

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

(c) 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 or in the space in which the test panels are placed. The circulation over the test panels shall be regarded as negligible.

Alternatively, a desiccator or other suitable vessel containing a saturated solution of ammonium sulfate may be used to provide an atmosphere of approximately 96% relative humidity when maintained at a temperature of $38 \pm 2^\circ\text{C}$ in a suitably regulated electric oven.