

Australian Standard™

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

**Method 3.4: Ageing properties—
Determination of resistance to
accelerated ageing by artificial light**

STANDARDS
Australia



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PREFACE

This Standard was prepared by the Standards Australia Committee PK-025, Packaging Code to supersede AS 1635.21.2—1985, *Methods of test for pressure-sensitive adhesive tape, Part 21.2: Determination of resistance to accelerated ageing by artificial light*.

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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FOREWORD

The specimens of the tape are tested by using the following procedure:

- (a) White bond paper.
- (b) Glass plate with half their length rolled back and fixed, thus exposing the adhesive.

All the specimens are exposed to artificial light for 96 hours. Those on the bonded paper are examined for change in colour and migration of adhesive and, after superimposition of bond paper under load for 30 min, for clean separation. Those on the glass plate are examined for adhesion strength of the exposed selection.

STANDARDS AUSTRALIA

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

Method 3.4: Ageing properties—Determination of resistance to accelerated ageing by artificial light

1 SCOPE

This Standard specifies the method for determining the resistance of pressure sensitive adhesive tape to accelerated ageing by artificial light.

The method applies to filmic pressure-sensitive adhesive tapes used in interior office situations.

2 REFERENCED DOCUMENTS

The following documents are referenced in this Standard.

AS

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

2313.1.1 Method 1.1: Adhesion—Peel adhesion

3 APPARATUS AND MATERIALS

The following items of apparatus and materials are required:

(a) *Stainless steel panels*

The panels shall be as specified in AS 2313.1.1.

(b) *Steel roller*

The steel roller shall be as specified in AS 2313.1.1.

(c) *White bond paper*

Paper shall be cut into pieces 100 mm × 200 mm.

NOTE: The white bond paper should have a density of 80 g/m².

(d) *Unit assembly (see Figure 1)*

The unit shall consist of a hollow cylinder of metal, e.g. aluminium, or other suitable material, open at both ends, with an internal diameter of approximately 400 mm and a length of 300 mm. It shall be laterally supported by legs mounted on a base. Distance between 100 mm to allow free access of air to all test specimens. The lamp shall be mounted centrally in the cylinder so that the light distribution is constant around the circumference of the cylinder. An electric running-hour meter (de-energized by lamp failure) shall be mounted on the base board as part of the lamp circuit.

NOTE: Voltage fluctuations as well as fluctuations in ambient temperature are likely to cause concomitant fluctuations of 10°C to 15°C in black panel temperatures. The use of a voltage stabilizer is therefore recommended.

(e) *Lamp*

A 500 W mercury vapour, tungsten filament, internally phosphor-coated (ballasted mercury) lamp.