AS 2313.1.6—2005

Australian Standard™

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

Method 1.6: Adhesion—Unwind force

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

Method 1.6: Adhesion—Unwind force

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PREFACE

This Standard was prepared by the Standards Australia Committee PK-025, Packaging Code to supersede AS/NZS 1635.7.1:1995, *Methods of test for pressure-sensitive adhesive tape*, Part 7.1: *Unwind force*.

The objective of this edition is to revise the apparatus and materials used in the procedure of the Standard.

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Australian Standard

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

Method 1.6: Adhesion—Unwind force

1 SCOPE

This Standard specifies the method for determining the force required to unwind pressure-sensitive adhesive tape from a roll.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS
2193 Calibration and classification of force measuring systems

3 APPARATUS

The following apparatus is required:

(a) *Tension testing machine*—complying with the requirements of AS 2193 for Grade B machines over suitable load ranges, and having a rate of travel of 300 ±10 mm/min of the moving jaw or carriage.

(b) *Unwind test jig* (see Figure 1).

(c) *Unwind machine*—which allows the unwind force to be measured by means of an indicator and calibrated scale (see Figure 2).

4 TEST CONDITIONS

Testing shall be conducted at 23 ±5°C and 50 ±5% relative humidity.

5 PREPARATION OF ROLL FOR TESTING

The roll shall be conditioned at 23 ±5°C and 50 ±5% relative humidity for 24 ±1 h prior to testing.

6 PROCEDURE

6.1 Low speed unwind

The procedure shall be as follows:

(a) Measure and record the width of the roll of tape to the nearest 0.5 mm.

(b) Place the roll in the unwind test jig (3(b)) and attach the assembly to one moving jaw or carriage of the tension testing machine.

(c) Unroll approximately 75 mm of the tape by hand and make a tab by folding the last 25 mm of tape on to itself, adhesive to adhesive.

(d) Insert the tab in the other clamp (jaw or carriage) of the tension testing machine (3(a)), and unwind approximately 200 mm of the tape at a rate of 300 ±10 mm/min.

(e) Record the maximum force required to unwind the roll, in newtons.