

Australian Standard[®]

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

Method 4.3: Printing properties—Determining abrasive resistance

PREFACE

This Standard was prepared by the Standards Australia Committee PK-025, Packaging Code at the request of Australian Industry.

The objective of this Standard is to specify a method of test for the wear resistance of print.

METHOD

1 SCOPE

This Standard specifies a method for determining the abrasion (scuffing or rubbing) resistance of printed, or the coated surface of labels.

2 REFERENCE DOCUMENTS

The following documents are referred to in this Standard:

AS

2400 Packaging

2400.1 Part 1: Glossary of packaging terms

3 DEFINITIONS

For the purposes of this Standard, the following definitions in AS 2400.1 apply.

4 PRINCIPLE

A dry rub method is used to determine scuffing or rubbing resistance of printed labels, using a 'Sutherland' rub tester.

5 APPARATUS

The following apparatus is required:

- (a) The 'Sutherland' rub tester, with a block having a mass of 1.8 kg, see Figure 1.
- (b) Fine brush.

6 TEST SPECIMEN

The following are required:

- (a) Printed test specimen approximately 150 mm × 75 mm.
- (b) Unprinted test strip, approximately 178 mm × 50.8 mm and taken from the same stock used for the printed test specimen.

The printed test specimen shall not have cuts, perforation or scoring.

7 PROCEDURE

The procedure, which shall be carried out approximately 24 h after printing, and after ensuring that test equipment and accessories are clean before use, shall be as follows:

- (a) Secure an unprinted test strip to the test block with the unprinted surface away from the rubber pads.
- (b) Mount the printed test specimen on the rubber pad of the base plate with the print side up.
- (c) Clean the surface of both the unprinted test strip and the printed test specimen using the fine brush.
- (d) Place the blocks over the printed test specimen, making sure that the rubber pad of the test block is over the ink area being tested.
- (e) Preset the 'Sutherland' tester for 520 rubs or as specified by the end user.
- (f) Start the 'Sutherland' tester.
- (g) The test process should be continuous.
- (h) Upon completion of 520 rubs, carefully remove both the unprinted test strip and the printed test specimen from the machine for evaluation.
- (i) Visually examine the printed test specimen for scuff marks, scoring or ink/colour transfer.
- (j) Record any observations.

8 REPORT

The following information shall be reported:

- (a) Any scuff marks or scoring of the printed test specimen.
- (b) Any ink/colour transfer.
- (c) The number of rubs.
- (d) Reference to this Australian Standard, i.e. AS 2313.4.3.