

Australian Standard[®]

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

Method 2.7: Physical properties—Determining grammage of release liner

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 to determining the grammage for the release liner.

METHOD

1 SCOPE

This Standard specifies a method for determining the grammage of release liner of pressure-sensitive adhesive label stock.

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

Test pieces of size 100 × 100 mm are accurately cut from samples of the label stock. The release liner is stripped and weighed and the grammage calculated.

5 APPARATUS

The following apparatus is required:

- (a) Apparatus to cut test pieces 100 mm × 100 mm, e.g. a small aluminium hand roller and a 100 mm square rule die, a 100 mm square knife edge punch, a 100 mm square template (normally made of steel). See Figure 1.

- (b) A balance capable of weighing the 100 mm square test pieces to an accuracy of 0.005 g.
- (c) A sharp knife.

6 CONDITIONING

Samples of label stock shall be conditioned at $23 \pm 5^{\circ}\text{C}$ and $50 \pm 5\%$ relative humidity for a minimum of 24 h prior to testing, and the test shall be performed under the same conditions. Tests, which cannot be carried out in the conditioning atmosphere, shall be commenced within 2 min of withdrawal of the test pieces from that atmosphere, and the ambient conditions recorded.

7 TEST PIECES

Prepare three test pieces of release liner as follows:

- (a) Using the knife, cut a representative sample of label stock to a size conveniently in excess of 100 mm $\times$ 100 mm.
- (b) Prepare three 100 mm $\times$ 100 mm test pieces of release liner from the sample using one of the following methods:
 - (i) Place the sample over the square rule die and, holding it firmly and flat on the die with one hand, use the aluminium roller with the other hand to force the sample onto the knife edge.
 - (ii) Cut the sample by using a single stroke of a press with the knife edge punch.
 - (iii) Place the template on the sample and cut around the edges of the template with the sharp knife.
- (c) Strip an intact test piece of release liner from each test piece.

8 PROCEDURE

Weigh each of the three test piece of release liner, in grams, to an accuracy of ± 0.005 g.

NOTE: The weighings should agree to within $\pm 4\%$ of each other. If they do not agree, repeat the test to confirm findings.

9 CALCULATION AND EXPRESSION OF RESULT

Determine the mean mass of the three test pieces of release liner and calculate the grammage (in grams per square metre) from the following equation:

$$\text{Grammage of release liner} = \text{Mean mass of test piece} \times 100$$

10 REPORT

The report shall include the following:

- (a) The grammage of release liner, in grams per square metre.
- (b) Reference to this Australian Standard, i.e. AS 2313.2.7.