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**Resilient and textile floor coverings —
Determination of length, width and
straightness of sheet**

*Revêtements de sol résilients et textiles — Détermination de la longueur,
de la largeur et de la rectitude des lés*



Reference number
ISO 24341:2006(E)

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Foreword

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ISO 24341 was prepared by Technical Committee ISO/TC 219, *Floor coverings*.

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Resilient and textile floor coverings — Determination of length, width and straightness of sheet

1 Scope

This International Standard specifies methods for determining the length, width and straightness of resilient or textile floor coverings in sheet form.

The straightness of resilient or textile floor is an important consideration because the installed flooring will have an objectionable appearance if the machine direction edges of the sheet flooring deviate excessively from a straight line.

2 Principle

A test piece, resting on a flat surface, is measured at several points along its width and length.

The straightness at the deviation point of a test piece of a resilient or textile sheet resting on a flat surface is carried out by measuring the deviation from a virtual straight line passing through both ends of an edge.

3 Apparatus

3.1 Ruler or semi-rigid tape, accurate 0,05 %.

3.2 Table or flat surface, of greater width and, if possible, of greater length than the test piece to be measured.

3.3 Measuring device, for measuring the length of the sheet to an accuracy of 0,1 %, e.g. a calibrated measuring wheel, steel tape.

3.4 String line, length 10 m.

4 Atmosphere for conditioning and testing

Condition the test specimen for at least 4 h at ambient room temperature and test in the same environment.

5 Sampling and selection of specimens

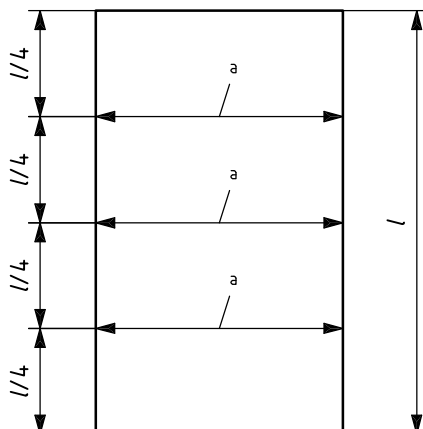
Use the entire roll of floor covering if both length and width are to be determined. If only width is to be determined, the test piece shall have an approximate length of 200 mm.

In order to determine the straightness of a sheet material, a test piece with a minimum length of 5 m shall be taken.

6 Test procedure

6.1 Measurement of width

Place the test piece on the table, with the wear layer upward. Measure the width, using a ruler or semi-rigid tape (3.1), at three positions, equally divided over the length of the test piece, as shown in Figure 1.



- a Test piece width.
- l Test piece length.

Figure 1 — Measurement of width

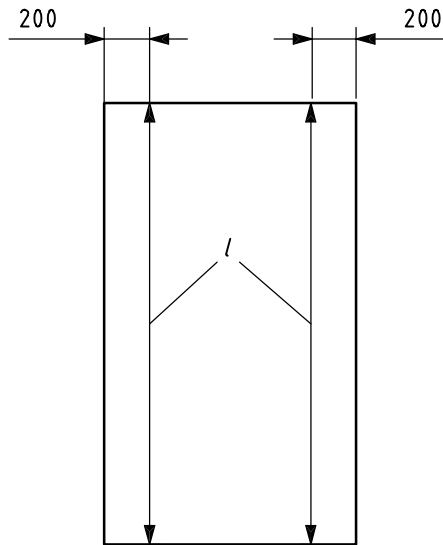
6.2 Measurement of length

6.2.1 Lay out the sheet completely flat with the wear layer upward. Measure with measuring device (3.3) the length in two places parallel to the axis of the test piece approximately 200 mm from the edges, as shown in Figure 2.

6.2.2 If the table is shorter than the length of the roll, take the measurement part by part. Unroll as far as possible and follow the procedure as often as necessary to measure the full length.

Alternatively, if the roll is significantly longer than the table, measure the length of the roll by re-rolling using a device with a calibrated measuring wheel.

Dimensions in millimetres

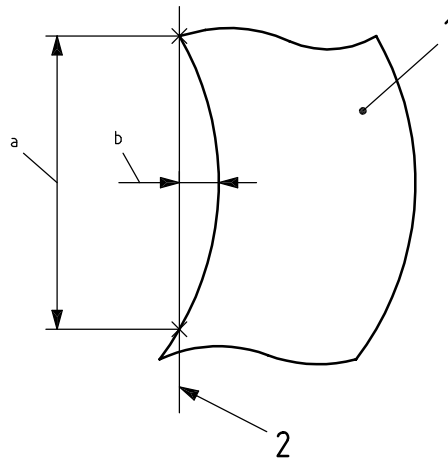


l Test piece length.

Figure 2 — Measurement of length

6.3 Measurement of straightness

Lay out the test piece completely flat with the wear layer upward. For a measured length of 5 m to 10 m, measure the straightness of an edge against the string line. Record the greatest deviation and the reference length, as shown in Figure 3.



Key

- 1 sheet
- 2 string line
- a Reference length.
- b Deviation.

Figure 3 — Measurement using a string line

7 Calculation and expression of results

Calculate the effective width of the test piece as the smallest of the three measurements. Round off to the nearest 5 mm and express the result in millimetres.

Calculate the mean value of the two recorded lengths. Round off to the nearest 0,05 m and express the result in metres.

Express the results of the greatest deviation from straightness to the nearest 5 mm.

8 Precision statement

An interlaboratory test will be conducted to determine the precision of this method.

9 Test report

The test report shall contain the following information:

- a) a statement that the tests were performed in accordance with this International Standard, i.e. ISO 24341:2006;
- b) complete identification of the product tested, including type, source, colour and manufacturer's reference numbers;
- c) previous history of the sample;
- d) mean value of width in millimetres;
- e) mean value of length in millimetres;
- f) value of straightness in millimetres and the reference length in meters
- g) temperature at which the test was conducted;
- h) precision statement (see Clause 8);
- i) any deviation from this International Standard which may have affected the results.

Bibliography

- [1] EN 426:1993, *Resilient Floor Coverings — Determination of width, length, straightness and flatness of sheet material*
- [2] JIS A 1454, *Test Methods — Resilient floor coverings, section 6.4 — Dimension of Floor Sheet*

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