INTERNATIONAL STANDARD

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Resilient floor coverings — Determination of mass per unit area

Revêtements de sol résilients — Détermination de la masse surfacique

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Foreword

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ISO 23997 was prepared by Technical Committee ISO/TC 219, *Floor coverings*.

Resilient floor coverings — Determination of mass per unit area

1 Scope

This International Standard describes a method for determining the mass per unit area of a resilient floor covering.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
mass per unit area
quotient of mass and area

NOTE Mass per unit area is expressed in grams per square metre.

3 Principle

A number of specimens of defined size are taken from a resilient floor-covering sample. The specimens are weighed and, from this, the mass per unit area of the floor covering is calculated.

4 Apparatus

4.1 **Balance**, capable of weighing a specimen to the nearest 10 mg.

4.2 **Calliper gauge**, capable of measuring the size of the specimen to the nearest 0,05 mm.

5 Atmosphere for conditioning and testing

Condition the specimen at a temperature of 23 ± 2 °C and a relative humidity of 50 ± 5 % for a minimum of 24 h. Maintain these conditions when carrying out the test.

6 Sampling and selection of specimens

Take a representative sample from the available material. Take five specimens, at equal distances from the sample, the distance between the outer edge of the sample and the nearest edge of the specimen being at least 100 mm, either square or round of at least 0,01 m^2 in area, or from individual tiles. If necessary, clean the edges of the specimen.

Full tiles may also be used.

7 Test procedure

For each specimen, measure and record the surface dimensions to the nearest 0,1 mm. Weigh each specimen separately and record the mass to the nearest 10 mg.

8 Calculation and expression of results

Calculate the mass per unit area, in grams per square metre, using the following formula:

$$\frac{m}{A}$$

where

m is the mass of the specimen, in grams;

A is the area of the specimen, in square metres.

For results up to and equal to 1 000 g/m^2, express to the nearest 5 g/m^2. For results over 1 000 g/m^2, express to the nearest 10 g/m^2.

Calculate the mean value for the mass per unit area for the five specimens, expressed to the nearest gram.

9 Precision statement

A round-robin test will be conducted to determine the precision of this method

10 Test report

The test report shall contain the following information:

a) a statement that the tests were performed in accordance with this International Standard (ISO 23997);

b) complete identification of the product tested, including type, source, colour and manufacturer's reference numbers;

c) previous history of the sample;

d) the mean value for the mass per unit area;

e) any deviation from this International Standard, which may have affected the results.

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