



**SLOVENSKI STANDARD**  
**SIST EN 423:1999**

**01-marec-1999**

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Resilient floor coverings - Determination of the effect of stains

Elastische Bodenbeläge - Verhalten gegenüber Flecken

Revetements de sol souples - Détermination de l'action des taches

Ta slovenski standard je istoveten z: **EN 423:1993**

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**ICS:**

97.150      Netekstilne talne obloge      Non-textile floor coverings

**SIST EN 423:1999**

**en**

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EUROPEAN STANDARD

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English version

## Resilient floorcoverings - Determination of the effect of stains

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Elastische Bodenbeläge - Verhalten gegenüber Flecken

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REPUBLIKA SLOVENIJA  
MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO  
Urad RS za standardizacijo in meroslovje  
LJUBLJANA

SIST..... EN 423 .....

PREVZET PO METODI RAZGLASITVE

-03- 1999

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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### CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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#### Foreword

This European Standard was prepared by CEN/TC 134 "Resilient and textile floor coverings", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 1994, and conflicting national standards shall be withdrawn at the latest by February 1994.

The Standard was approved and in accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard : Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

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## Resilient floor coverings - Determination of the effect of stains

### 1 Scope

This European Standard specifies a method for determining the reaction of a resilient floor covering to those chemical substances it is likely to experience in service.

### 2 Principle

Various chemical substances in liquid or paste form are placed on a test piece for defined periods and removed. After cleaning has been carried out the resulting change of appearance is assessed under specified lighting conditions.

### 3 Apparatus and materials

#### 3.1 Standard laboratory equipment:

- a) pipettes;
- b) watch glass, diameter 40 mm;
- c) spatulas.

3.2 Chemical substances in liquid or paste form, to be agreed between the interested parties.

#### 3.3 Standard cleaning and stain removal products.

3.3.1 White cotton in pad or cloth form.

3.3.2 Brushes, hard, unlikely to score the surface.

3.3.3 Warm water used alone or with the following:

- a) synthetic detergent, e.g. sodium alkylsulfate;
- b) soap;
- c) alkaline products, e.g. washing soda or ammonia solution;
- d) hydrogen peroxide;
- e) sodium hypochlorite;
- f) sodium thiosulfate, 1 % solution;
- g) oxalic acid.

3.3.4 Denatured ethanol

3.3.5 White spirit\*

3.3.6 Turpentine\*

\* These should be rinsed with ethanol after use.

### 3.4 Abrasives

Abrasive scouring pads, steel wool No. 00 or scouring powder, or abrasive papers, grain size P 240 or finer, used with water.

### 3.5 Special cleaning products

Special products recommended by the floor covering manufacturer.

### 3.6 Illumination device

It comprises a lamp of correlated colour temperature 5500 K to 6500 K, mounted to give an intensity of light at the viewing platform of  $(1500 \pm 100)$  lx and in such a way as to illuminate the test piece vertically from above. The surroundings shall be neutral and darkened.

The intensity of the light shall be checked frequently by the use of a luxometer. The lifetime of the lamp, as given by the manufacturer, shall not be exceeded.

### 3.7 Rotary viewing table

It enables the test piece to be rotated so that it may be viewed from all directions under the standard illumination.

## 4 Sampling and preparation of test pieces

Take a representative sample from the available material.

Take one test piece in the colour(s) to be used with a surface area of at least 3000 mm<sup>2</sup> for each stain to be tested. If the test uses a substance likely to cause swelling or deformation of the test piece, e.g. prolonged contact with a solvent, bond the test piece to a fibre-cement sheet at least five days before testing.

Subject the test piece to any treatment required, e.g. light abrasion to remove surface polish or application of a non-specified maintenance product.

Identify the positions corresponding to each of the substances used, either by marking numbers on the test piece (using a marking which is not affected by the material used in the test), or by a sketch, diagram or photograph.

## 5 Procedure

### 5.1 Application of liquid substances

Pour a little liquid into the centre of the marked position. Apply the convex face of a watch glass to the liquid and remove it immediately.

If the diameter of the stain does not exceed 15 mm, add a few more drops and spread again by applying the watch glass. Leave it in position this time, in such a way as to produce a stain of 300 mm<sup>2</sup> to 400 mm<sup>2</sup>.

## 5.2 Application of paste substances

With a spatula, spread about 1000 mm<sup>3</sup> over an area of 300 mm<sup>2</sup> to 400 mm<sup>2</sup>, (i.e. thickness 2,5 mm to 3 mm).

## 5.3 Duration of contact

The main duration of contact shall be 2 h. If a stain appears on the test piece after 2 h, a new test shall be conducted for a period of 30 min.

## 5.4 Types of cleaning and observation

5.4.1 Before cleaning, remove stains which are still liquid with cotton, working from the edge towards the centre of the stain. Scrape off the remains of paste with a spatula and wipe with cotton as above.

After cleaning has been carried out, examine the residual staining from a distance of approximately 800 mm at an approximate angle of 45° and from all directions by slowly rotating the viewing table.

5.4.2 If a stain is visible, rub it down with a mild abrasive material or a cleaning product recommended by the manufacturer, and examine as described in 5.4.1.

## 6 Expression of results

Express the results and present them in the report in accordance with table 1.

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Table 1: Interpretation and presentation of results	
Index	Effect of test after cleaning/abrasion
0	not affected
1	very slightly affected
2	slightly affected
3	affected
4	severely affected

## 7 Test report

The test report shall contain the following information:

- a) a reference to this standard, i.e. EN 423;
- b) a complete identification of the product tested, including type, source, colour and manufacturer's reference numbers;
- c) previous history of the sample;
- d) the staining materials, type of cleaning and contact periods used;
- e) the test results in accordance with table 1;
- f) any deviation from this standard which may have affected the results.

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