



# SLOVENSKI STANDARD

## kSIST FprEN 654:2010

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### Netekstilne talne obloge - Delno upogibljive polivinilkloridne plošče - Specifikacija

Resilient floor coverings - Semi-flexible polyvinyl chloride tiles - Specification

Elastische Bodenbeläge - Polyvinylchlorid-Flex-Platten - Spezifikation

Revêtements de sol résilients - Dalles semi-flexibles à base de polychlorure de vinyle - Spécifications

**Ta slovenski standard je istoveten z: FprEN 654**

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#### ICS:

|        |                          |                             |
|--------|--------------------------|-----------------------------|
| 97.150 | Netekstilne talne obloge | Non-textile floor coverings |
|--------|--------------------------|-----------------------------|

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**FINAL DRAFT**  
**FprEN 654**

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ICS 97.150

Will supersede EN 654:1996

English Version

## Resilient floor coverings - Semi-flexible polyvinyl chloride tiles - Specification

Revêtements de sol résilients - Dalles semi-flexibles à base  
de polychlorure de vinyle - Spécifications

Elastische Bodenbeläge - Polyvinylchlorid-Flex-Platten -  
Spezifikation

This draft European Standard is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 134.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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## Foreword

This document (FprEN 654:2010) has been prepared by Technical Committee CEN/TC 134 “Resilient, textile and laminate floor coverings”, the secretariat of which is held by BSI.

This document is currently submitted to the Unique Acceptance Procedure.

This document will supersede EN 654:1996.

## FprEN 654:2010 (E)

### 1 Scope

This European Standard specifies the characteristics of semi-flexible tiles based on polyvinyl chloride and modifications thereof.

To encourage the consumer to make an informed choice, this standard includes a classification system (see EN 685) based on intensity of use, which shows where these floor coverings should give satisfactory service. It also specifies requirements for marking.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 425, *Resilient and laminate floor coverings — Castor chair test*

EN 427, *Resilient floor coverings — Determination of the side length, squareness and straightness of tiles*

EN 428, *Resilient floor coverings — Determination of overall thickness*

EN 429, *Resilient floor coverings — Determination of the thickness of layers*

EN 430, *Resilient floor coverings — Determination of mass per unit area*

EN 434, *Resilient floor coverings — Determination of dimensional stability and curling after exposure to heat*

EN 435, *Resilient floor coverings — Determination of flexibility*

EN 436, *Resilient floor coverings — Determination of density*

EN 660-2, *Resilient floor coverings — Determination of wear resistance — Part 2: Frick-Taber test*

EN 662, *Resilient floor coverings — Determination of curling on exposure to moisture*

EN 663, *Resilient floor coverings — Determination of conventional pattern depth*

EN 685, *Resilient, textile and laminate floor coverings — Classification*

EN ISO 105-B02, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test (ISO 105-B02:1994, including amendment 1:1998)*

### 3 Terms and definitions

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

**3.1 polyvinyl chloride floor covering**  
floor covering with surface layers which are produced using polyvinyl chloride (and modifications thereof) as binder

**3.2 semi-flexible polyvinyl chloride floor covering**  
rigid tiles made from polyvinyl chloride (and modifications thereof) which can only be deflected under specified conditions

## **4 Requirements**

### **4.1 General requirements**

Floor coverings described in this standard shall conform to the appropriate general requirements specified in Table 1, when tested in accordance with the methods given therein.

### **4.2 Classification requirements — Level of use classification**

Floor coverings described in this standard shall be classified as suitable for different levels of use in accordance with the performance requirements specified in Table 2 when tested with the methods given therein. Classification shall conform to the scheme specified in EN 685.

### **4.3 Homogeneous products and wear layers**

A homogeneous product shall retain its wear group classification throughout the thickness of the product if tested.

A wear layer shall retain its wear group classification throughout its thickness if tested.

## FprEN 654:2010 (E)

Table 1 — General requirements

| Characteristic   |                   | Requirement  | Test method                             |
|--|-------------------|--|---|
| Side length of tiles   | mm                | Deviation $\leq 0,13\%$ of nominal length up to 0,5 mm maximum       | EN 427                                  |
| squareness and straightness for side length:   | mm                | Deviation allowed at any point                                       |   |
| $\leq 400$ mm  |                   | $\leq 0,25$  |   |
| $> 400$ mm   |                   | $\leq 0,35$  |   |
| Overall thickness:   | mm                |  | EN 428                                  |
| average  |                   | Nominal value + 0,13<br>- 0,10                                       |   |
| individual results   |                   | Average value $\pm 0,15$   |   |
| Total mass per unit area<br>(average)  | g/m <sup>2</sup>  | Nominal value + 13%<br>- 10%   | EN 430                                  |
| Density (average)  | kg/m <sup>3</sup> | Nominal value $\pm 0,75$   | EN 436                                  |
| Products with nominal density $\geq 230$ kg/m <sup>3</sup>   |                   | Nominal value $\pm 0,100$  |   |
| Dimensional stability after exposure<br>to heat:   | %                 | $\leq 0,25$  | EN 434                                  |
| Curling on exposure to moisture  | mm                | $\leq 0,75$  | EN 662                                  |
| Flexibility  |                   | Shall show no signs of cracking when deflected to a minimum of 15 mm | EN 435<br>Method B                      |
| Colour fastness to artificial light  |                   | 6 minimum  | EN ISO 105-B02<br>Method 3 <sup>1</sup> |
| <sup>1</sup> Expose a full size of test specimen. Store a further test specimen in the dark, which will constitute the reference standard for assessment of colour change. |                   |  |   |

Table 2 — Classification requirements for wear groups

| Characteristic                          | Requirements for wear group |                      |                      |                       | Test method |
|---|-----------------------------|----------------------|----------------------|-----------------------|-------------|
|   | T                           | P                    | M                    | F                     |             |
| volume loss $F_v$ mm <sup>3</sup>       | $F_v \leq 2,0^1$            | $2,0 < F_v \leq 4,0$ | $4,0 < F_v \leq 7,5$ | $7,5 < F_v \leq 15,0$ | EN 660-2    |
| <sup>1</sup> If tested for verification |                             |                      |                      |                       |             |