RESILIENT, TEXTILE AND LAMINATE FLOOR COVERINGS
FLOOR COVERING STANDARD SYMBOLS

ELASTISCHE, TEXTILE UND LAMINAT BODENBELÄGE
STANDARDISIERTE SYMBOLEN FÜR FUSSBODENBELÄGE
REVÊTEMENTS DE SOL RÉSILIENTS, TEXTILES ET EN STRATIFIÉS
SYMBOLES STANDARDISÉES DE REVÊTEMENTS DE SOL
INTRODUCTION
Resilient, textile and laminate floor coverings and in case of floating installation with underlays, the combination of these floorcoverings with underlays, have a number of specific characteristics and are classified in a number of use classes.

In order to make the classification and these specific characteristics understandable and recognizable to the consumer, graphic symbols have been developed.

For practical reasons, only symbols for characteristics linked directly to a European or ISO Standard have been developed.

FOREWORD
This document (FpCEN/TS 15398:2015) has been prepared by Technical Committee CEN/TC 134 “Resilient, textile and laminate floor coverings”, the secretariat of which is held by NBN.

This document is currently submitted to the Formal Vote. This document will supersede CEN/TS 15398:2008.

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1. **SCOPE**

This draft Technical Specification establishes a system of graphic symbols for use in the marking of the following floor coverings and specifies the use of these symbols:

- resilient floor coverings manufactured from plastics, linoleum, cork or rubber, excluding loose-laid mats;
- textile floor coverings, excluding loose-laid mats;
- laminate floor coverings;
- floor panels for floating installation.

2. **NORMATIVE REFERENCES**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 438-1**
  High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (Usually called Laminates) — Part 1: Introduction and general information

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

- **EN 669**
  Resilient floor coverings — Determination of dimensional stability of linoleum tiles caused by changes in atmospheric humidity

- **EN 717-1**
  Wood-based panels — Determination of formaldehyde release — Part 1: Formaldehyde emission by the chamber method

- **EN 717-2**
  Wood-based panels — Determination of formaldehyde release — Part 2: Formaldehyde release by the gas analysis method

- **EN 985**
  Textile floor coverings — Castor chair test

- **EN 986**
  Textile floor coverings — Tiles — Determination of dimensional changes due to the effects of varied water and heat conditions and distortion out of plane

- **EN 994**
  Textile floor coverings — Determination of the side length, squareness and straightness of tiles

- **EN 1081**
  Resilient floor coverings — Determination of the electrical resistance

- **EN 1307**
  Textile floor coverings — Classification

- **EN 1399**
  Resilient floor coverings — Determination of resistance to stubbed and burning cigarettes

- **EN 1814**
  Textile floor coverings — Determination of resistance to damage at cut edges using the modified Vettermann drum test

- **EN 1815**
  Resilient and laminate floor coverings — Assessment of static electrical propensity

- **EN 1963**
  Textile floor coverings — Tests using the Lisson Tretrad Machine

- **EN 13329**
  Laminate floor coverings — Elements with a surface layer based on aminoplast thermosetting resins — Specifications, requirements and test methods

- **EN 13501-1**
  Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests

- **EN 13553**
  Resilient floor coverings — Polyvinyl chloride floor coverings for use in special wet areas — Specification

- **EN 13745**
  Surfaces for sports areas — Determination of specular reflectance

- **EN 13845**
  Resilient floor coverings — Polyvinyl chloride floor coverings with particle based enhanced slip resistance — Specification

- **EN 13893**
  Resilient, laminate and textile floor coverings — Measurement of dynamic coefficient of friction on dry floor surfaces

- **EN 14041**
  Resilient, textile and laminate floor coverings — Essential characteristics

- **EN 14215**
  Textile floor coverings — Classification of machine-made pile rugs and runners

- **EN 14978**
  Laminate floor coverings — Elements with acrylic based surface layer, electron beam cured — Specifications, requirements and test methods

- **EN 15468**
  Laminate floor coverings — Elements with directly applied printing and resin surface layer — Specifications, requirements and test methods

- **EN 16205**
  Laboratory measurement of walking noise on floors CEN/TS 16354, Laminate floor coverings — Underlays — Specification, requirements and test methods
EN ISO 105-B02
Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test (ISO 105-B02)

EN ISO 354
Acoustics — Measurement of sound absorption in a reverberation room (ISO 354)

EN ISO 717-2
Acoustics — Rating of sound insulation in buildings and of building elements — Part 2: Impact sound insulation (ISO 717-2)

EN ISO 10874
Resilient, textile and laminate floor coverings — Classification (ISO 10874)

EN ISO 11654
Acoustics — Sound absorbers for use in buildings — Rating of sound absorption (ISO 11654)

EN ISO 14025
Environmental labels and declarations — Type III environmental declarations — Principles and procedures (ISO 14025)

EN ISO 23997
Resilient floor coverings — Determination of mass per unit area (ISO 23997)

EN ISO 24340
Resilient floor coverings — Determination of thickness of layers (ISO 24340)

EN ISO 24341
Resilient and textile floor coverings — Determination of length, width and straightness of sheet (ISO 24341)

EN ISO 24342
Resilient and textile floor-coverings — Determination of side length, edge, straightness and squareness of tiles (ISO 24342)

EN ISO 24344
Resilient floor coverings — Determination of flexibility and deflection (ISO 24344)

EN ISO 24346
Resilient floor coverings — Determination of overall thickness (ISO 24346)

EN ISO 26987
Resilient floor coverings — Determination of staining and resistance to chemicals (ISO 26987)

ISO 1765
Machine-made textile floor coverings — Determination of thickness

ISO 6356
Textile and laminate floor coverings — Assessment of static electrical propensity — Walking test

ISO 8302
Thermal insulation — Determination of steady-state thermal resistance and related properties — Guarded hot plate apparatus

ISO 8543
Textile floor coverings — Methods for determination of mass

ISO 10965
Textile floor coverings — Determination of electrical resistance

ISO 24334
Laminate floor coverings — Determination of locking strength for mechanically assembled panels

ISO 24338
Laminate floor coverings — Determination of abrasion resistance

ISO 24343 (all parts)
Resilient and laminate floor coverings — Determination of indentation and residual indentation
3. DESCRIPTIONS AND DEFINITIONS OF SYMBOLS

3.1. GENERAL

If a specific standard is not valid for all three product groups, the relevant product group(s) will be mentioned below using one of the following abbreviations: T = Textile floor coverings; R = Resilient floor coverings; L = Laminate floor coverings. Where relevant the value of the technical characteristic needs to be given in the technical documentation. For example the pictogram for thermal resistance (Figure 34) should be accompanied by the value of the thermal resistance.

3.2. CLASSIFICATION ACCORDING TO EN ISO 10874

In EN ISO 10874 a classification system for different use classes is described, with references to the relevant product standards. In the following the pictograms, as defined in EN ISO 10874.

3.2.1. Class 21 Domestic moderate/light

3.2.2. Class 22 Domestic general/medium

3.2.3. Class 22+ Domestic general

3.2.4. Class 23 Domestic heavy

3.2.5. Class 31 Commercial moderate

3.2.6. Class 32 Commercial general

3.2.7. Class 33 Commercial heavy

3.2.8. Class 34 Commercial very heavy

3.2.9. Class 41 Industrial moderate

3.2.10. Class 42 Industrial general

3.2.11. Class 43 Industrial heavy

3.3. PICTOGRAMS RELATED TO ESSENTIAL REQUIREMENTS

3.3.1. General

EN 14041 specifies the health, safety and energy saving requirements of floor coverings under the CE marking.

3.3.2. CE marking


3.3.3. Electrical behaviour

The electrical behaviour of textile, laminate and resilient floor coverings – antistatic floor covering - is specified in EN 14041 (R + L + T), EN 1815 (R+L), ISO 6356 (T).

3.3.3.1. Electrical behaviour – Antistatic floor covering

The electrical behaviour of textile, laminate and resilient floor covering – vertical resistance is specified in EN 14041(R+L+T), EN 1081 (R+L), ISO 10965 (T).

3.3.3.2. Electrical behaviour

Vertical resistance - Static dissipative floor covering

3.3.3.3. Electrical behaviour

Vertical resistance - Conductive floor covering

3.3.4. Fire

The reaction to fire of textile, laminate and resilient floor coverings is specified in 13501-1.

3.3.4.1. Reaction to fire – Class A1ₙ

3.3.4.2. Reaction to fire – Class A2ₙ₋s1

3.3.4.3. Reaction to fire – Class A2ₙ₋s2
3.3.4.4. Reaction to fire – Class B\textsubscript{n}-s1

3.3.4.5. Reaction to fire – Class B\textsubscript{n}-s2

3.3.4.6. Reaction to fire – Class C\textsubscript{n}-s1

3.3.4.7. Reaction to fire – Class C\textsubscript{n}-s2

3.3.4.8. Reaction to fire – Class D\textsubscript{n}-s1

3.3.4.9. Reaction to fire – Class D\textsubscript{n}-s2

3.3.4.10. Reaction to fire – Class E\textsubscript{n}

3.3.4.11. Reaction to fire – Class F\textsubscript{n}

3.3.5. Slip
The slip resistance of textile, resilient and laminate floor coverings is specified in EN 14041 (R+L+T) and EN 13893.

3.3.5.1. Slip resistance – Class NPD

3.3.5.1. Slip resistance – Class DS

3.3.6. Water tightness
The water tightness resilient floor coverings is specified in EN 14041 and EN 13553 (R).

3.3.6.1. Water tightness for resilient floor coverings

3.3.7. Dangerous substances
The content of dangerous substances and the emissions of volatile organic compounds in textile, resilient and laminate floor coverings is specified in EN 14041, EN 717-1 and EN 717-2.

3.3.7.1. Formaldehyde emission HCHO – Class E1

3.3.7.2. Formaldehyde emission HCHO – Class E2

3.3.7.3. Formaldehyde emission HCHO – Class NA (not added)

3.3.7.4. PCP emission – Class DL (detection limit)

3.3.7.5. VOC classes, class A(f1-f6)

3.3.7.6. VOC classes, example class B(f1-f6)

3.3.7.7. VOC classes, example class C(f1-f6)

3.3.7.8. VOC classes, example class D(f1-f6)

3.3.7.9. VOC classes, example class E(f1-f6)

3.3.8. Thermal resistance
The thermal resistance of textile, resilient and laminate floor covering is determined according to EN 14041 (R+L+T), EN 1307 (T) and ISO 8302. The pictogram should be accompanied by the determined value.

3.3.8.1. Thermal resistance
3.4. ADDITIONAL CHARACTERISTICS

3.4.1. General
Besides essential requirements a number of additional characteristics can be claimed.

3.4.2. Castor chair suitability
The suitability for castor chair use of textile, resilient and laminate floor coverings is specified in EN 1307 (T), EN 985 (T), EN 14215 (T), EN 425 (R+L), EN 13329 (L), EN 14978 (L), EN 15468 (L).

3.4.2.1. Castor chair occasional use

3.4.2.2. Castor chair continuous use

3.4.3 Stairs suitability
The stair suitability for textile floor coverings is specified in EN 1307 (T), EN 1963 (T), EN 14215 (T).

3.4.3.1. Stairs occasional use

3.4.3.2. Stairs continuous use

3.4.4 Fraying behaviour
The fraying behaviour of textile floor coverings is specified in EN 1307 (T), EN 1814 (T).

3.4.4.1. Resistance to fraying

3.4.5. Luxury classes
The luxury class of textile floor coverings is specified in EN 1307 (T), EN 14215 (T).

3.4.5.1. Luxury class LC1

3.4.5.2. Luxury class LC2

3.4.5.3. Luxury class LC3

3.4.5.4. Luxury class LC4

3.4.5.5. Luxury class LC5

3.4.6. Light fastness
The light fastness of textile floor coverings is specified in EN 1307 (T), EN ISO 105-B02.

3.4.6.1. Light fastness

3.4.7. Acoustic properties
The sound absorption properties of textile resilient and laminate floor coverings are determined according to EN ISO 354, EN ISO 11654. The pictogram should be accompanied by the determined value.

3.4.7.1. Acoustical - Sound absorption

3.4.7.2. Acoustical - Walking noise

The walking noise properties of textile resilient and laminate floor coverings are determined according to EN 16205. The pictogram should be accompanied by the determined value.

3.4.7.3. Acoustical - Impact noise reduction

3.4.8. Resistance
The abrasion resistance of laminate and resilient floor coverings is specified in ISO 24338 (L), EN 660-2 (R).

3.4.8.1. Abrasion resistance

3.4.8.2. Cigarette resistance

The cigarette resistance of laminate floor coverings is specified in EN 438-1 (L).

3.4.8.3. Cigarette resistance
The impact resistance of laminate and resilient floor coverings is specified in EN 13329 (L), EN 14978 (L), EN 15468 (L) and EN 1399 (R).

### 3.4.8.3. Impact resistance

The staining resistance of laminate and resilient floor coverings is specified in EN ISO 26987 (R), EN 438-1 (L).

### 3.4.8.4. Staining resistance

The resistance to chemicals of resilient floor coverings is specified in EN ISO 26987 (R).

### 3.4.8.5. Resistance to chemicals

#### 3.4.9. Locking strength

The locking strength of laminate floor coverings is specified in ISO 24334 (L).

### 3.4.9.1. Locking strength of mechanically assembled panels

#### 3.4.10. Swelling

The swelling behaviour of laminate floor coverings is specified in EN 13329 (L), EN 14978 (L), EN 15468 (L).

### 3.4.10.1. Thickness swelling - Residential

### 3.4.10.2. Thickness swelling - Commercial

#### 3.4.11. Flexibility

The flexibility of resilient floor coverings is specified in EN ISO 24344 (R).

### 3.4.11.1. Flexibility

#### 3.4.12. Dimensional stability

The dimensional stability of textile, resilient and laminate floor coverings is specified in EN 669 (R), EN 13329 (L), EN 14978 (L), EN 15468 (L), EN 986 (T), EN 1307 (T).

### 3.4.12.1. Dimensional stability

#### 3.4.13. Residual indentation

The residual indentation of resilient and laminate floor coverings is determined according to ISO 24343 (all parts) (R+L). The pictogram should be accompanied by the determined value.

### 3.4.13.1. Indentation - Residual

#### 3.4.14. Effect of a furniture leg

The effect of a furniture leg on resilient floor coverings is determined according to ISO 24343 (all parts) (R+L). The pictogram should be accompanied by the determined value.

### 3.4.14.1. Effect of a furniture leg

#### 3.4.15. Enhanced slip property

The enhanced slip property of a resilient floor covering is specified in EN 13845 (R).

### 3.4.15.1. Enhanced slip

#### 3.4.16. Suitability for use in incidental humid conditions

The suitability for use in incidental humid conditions of textile floor coverings is specified in EN 1307 (T).

### 3.4.16.1. Suitability for use in incidental humid conditions

#### 3.4.17. Horizontal electrical resistance

The horizontal resistance of textile, resilient and laminate floor coverings is determined according to EN 1081 (R+L), ISO 10965 (T).

### 3.4.17.1 Horizontal resistance $\leq 10^6 \, \Omega$

### 3.4.17.2 Horizontal resistance $\leq 10^9 \, \Omega$
3.4.18. Roll length and roll width
The roll length and roll width of textile, resilient and laminate floor coverings are determined according to EN ISO 24341 (R+T). The pictogram should be accompanied by the determined value.

3.4.18.1. Roll length

3.4.18.2. Roll width

3.4.19. Thickness characteristics
The total thickness of textile, resilient and laminate floor coverings is determined according to EN ISO 24346 (R), EN ISO 24340 (R), ISO 1765 (T). The pictogram should be accompanied by the determined value.

3.4.19.1. Total thickness

3.4.19.2. Thickness of wear layer

3.4.20. Tile size
The size of tiles of textiles and resilient floor coverings is determined according to EN ISO 24342 (R+T), EN 994 (T). The pictogram should be accompanied by the determined value.

3.4.20.1. Tile size

3.4.21. Total mass
The total mass of textiles and resilient floor coverings is determined according to EN ISO 23997 (R), ISO 8543 (T). The pictogram should be accompanied by the determined value.

3.4.21.1. Total weight

3.4.22. Light reflection
The light reflection for resilient floor coverings is specified in EN 13745 (R).

3.4.22.1. Light reflection

3.5. Fibre composition (only of relevance for textile floor coverings)

3.5.1. Cotton

3.5.1.2. Hair

3.5.1.3. Jute

3.5.1.4. Polyamide

3.5.1.5. Polyacl-nitrile

3.5.1.6. Polyester

3.5.1.7. Polypropylene

3.5.1.8. Sisal

3.5.1.9. Wool

3.5.1.10. Viscose
3.6. UNDERLAYS FOR LAMINATE FLOORCOVERINGS
The following pictograms are related to the characteristics of underlays of laminate floor coverings and are determined according to CEN/TS 16354 (L). (All symbols below need to be accompanied by the corresponding value of the characteristic, e.g. R = 0.05 m²K/W or CS = 10 kPa).

3.6.1.1. **CS Compressive strength**

3.6.1.2. **DL Dynamic loading**

3.6.1.3. **RWS Reflected walking sound**

3.6.1.4. **IS Impact sound reduction**

3.6.1.5. **R Thermal resistance**

3.6.1.6. **SD Water vapour diffusion resistance**

3.7. ENVIRONMENTAL PRODUCT DECLARATION
Claims are made for EPD according to EN ISO 14025, EN 15804 can be visualized with, the following pictogram:

3.7.1.1. **EPD Environmental product declaration**
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