# Resilient, laminate and textile floor coverings - Parameters for the measurement of dynamic coefficient of friction on floor surfaces

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#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN
13893:2002 sisaldab Euroopa standardi
EN 13893:2002 ingliskeelset teksti.

Käesolev dokument on jõustatud 13.12.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13893:2002 consists of the English text of the European standard EN 13893:2002.

This document is endorsed on 13.12.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

This European standard specifies the parameters for the measurement of dynamic coefficient of friction ( $\mu$ ) on surfaces of resilient, laminate and textile floor coverings, usually walked on with shoes

#### Scope:

This European standard specifies the parameters for the measurement of dynamic coefficient of friction ( $\mu$ ) on surfaces of resilient, laminate and textile floor coverings, usually walked on with shoes

ICS 59.080.60, 97.150

**Võtmesõnad:** det, determination procedures, elastic fabrics, fabrics, floor coverings, friction factor, laminated, measurement, measuring techniques, parameters, properties, skid risk, slide-blocking, sliding friction, slipping, slipping security, testing, textile floor coverings

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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#### **English version**

# Resilient, laminate and textile floor coverings - Measurement of dynamic coefficient of friction on dry floor surfaces

Revêtements de sol résilients, stratifiés et textiles -Détermination du coefficient de frottement dynamique sur la surface des sols secs Elastische, laminierte und textile Bodenbeläge - Messung des Gleitreibungskoeffizienten von trockenen Bodenbelagsoberflächen

This European Standard was approved by CEN on 26 August 2002.

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

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

#### **Foreword**

This document (EN 13893:2002) has been prepared by Technical Committee CEN/TC 134 "Resilient, textile and laminate 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 May 2003, and conflicting national standards shall be withdrawn at the latest by May 2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

In this European Standard the annex A is normative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, A Dietien Oere of other Difference of the Color of the Co France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

#### Introduction

Dynamic friction testing is a means of assessing the slipperiness of floors. Many test devices have been constructed but these give different results since the design and construction methods differ and because different test parameters are chosen.

CEN/TC 134 therefore decided not to standardize a particular device for testing slipperiness properties of floor d state when test. coverings. The aim is to fix and standardize the principle of testing and specify the parameters to be followed when designing a test device and when testing with it.

#### 1 Scope

This European Standard specifies the method for the measurement of dynamic coefficient of friction (µ) on surfaces of resilient, laminate and textile floor coverings, usually walked on with shoes.

Relief floor coverings with a displacement volume ≤ 4 cm<sup>3</sup>/dm<sup>2</sup> are covered by this standard.

The measurements are made in a laboratory on ex-factory dry floor covering surfaces only. The method described is not suitable for testing on wet or contaminated surfaces.

#### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 522:1998, Adhesives for leather and footwear materials — Bond strength — Minimum requirements and adhesive classification.

EN 12466:1998, Resilient floor coverings — Vocabulary.

EN ISO 868, Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868:1985).

#### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions of EN 12466:1998 together with the following apply.

## 3.1 dynamic coefficient of friction, µ

quotient of the horizontal frictional force and the vertical load during motion at a constant speed between the slider and the horizontal floor covering

### 3.2 displacement volume

open volume of a relief floor covering beneath the wear surface

NOTE The method for determination of this property is given in annex A.

#### 4 Principle

Sliders made from the defined material and having a definite shape are loaded to impose a specified force on the floor covering. The loaded sliders are pulled parallel to the surface of the floor covering at a constant speed. The horizontal force applied to pull the sliders is recorded over the length of a trace. The horizontal force is divided by the vertical force to obtain the dynamic coefficient of friction.