# Surfaces for sports areas - Determination of vertical deformation

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#### **EESTI STANDARDI EESSÕNA**

### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN	This Estonian standard EVS-EN
14809:2006 sisaldab Euroopa standardi	14809:2006 consists of the English text of
EN 14809:2005 ingliskeelset teksti.	the European standard EN 14809:2005.
Käesolev dokument on jõustatud	This document is endorsed on 27.02.2006
27.02.2006 ja selle kohta on avaldatud	with the notification being published in the
teade Eesti standardiorganisatsiooni	official publication of the Estonian national
ametlikus väljaandes.	standardisation organisation.
Standard on kättesaadav Eesti	The standard is available from Estonian
standardiorganisatsioonist.	standardisation organisation.

#### Käsitlusala:

This European Standard specifies a method for the determination of the vertical deformation of sports surfaces.

#### Scope:

This European Standard specifies a method for the determination of the vertical deformation of sports surfaces.

ICS 97.220.10

Võtmesõnad:

# EUROPEAN STANDARD NORME EUROPÉENNE

# EN 14809

EUROPÄISCHE NORM

December 2005

ICS 97,220,10

#### **English Version**

## Surfaces for sports areas - Determination of vertical deformation

Surfaces de sols sportifs - Détermination de la déformation verticale

Sportböden - Bestimmung der vertikalen Verformung

This European Standard was approved by CEN on 28 November 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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

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#### **Foreword**

This European Standard (EN 14809:2005) has been prepared by Technical Committee CEN/TC 217 "Surfaces for sports areas", 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 June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, PCE, Slova. Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

#### 1 Scope

This European Standard specifies a method for the determination of the vertical deformation of sports surfaces.

NOTE The method specified is commonly known as the Artificial Athlete (Stuttgart) method.

#### 2 Normative references

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

EN 12229, Surfaces for sports areas — Procedure for the preparation of synthetic turf and textile test pieces

ISO 6487, Road Vehicles — Measurement techniques in impact tests — Instrumentation

#### 3 Terms and definitions

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

#### 3.1

#### area-elastic sports surface

sports surface, to which the application of a point force causes deflection over a relatively large area around the point of application of the force

#### 3.2

#### point-elastic sports surface

sports surface, to which the application of a point force causes deflection only at or close to the point of application of the force

#### 3.3

#### combination-elastic sports surface

area-elastic sports surface with a point-elastic top layer, to which the application of a point force causes both localized deflection and deflection over a wider area

#### 3.4

#### mixed-elastic sports surface

point-elastic sports surface with an area-stiffening component

NOTE A mixed-elastic sports surface has deflection characteristics between those of an area-elastic surface and a point-elastic surface.

#### 3.5

#### vertical deformation

deformation of the surface to an applied normalized load

#### 4 Principle

A weight is allowed to fall onto a spring placed on the test piece; the maximum deformation applied is recorded.