Surfaces for sports areas - Determination of tensile properties of synthetic sports surfaces

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12230:2003 sisaldab Euroopa standardi EN 12230:2003 ingliskeelset teksti. Käesolev dokument on jõustatud 16.05.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 12230:2003 consists of the English text of the European standard EN 12230:2003. This document is endorsed on 16.05.2003 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 a method for the determination of the tensile properties of materials used as surfaces for sports areas. It is applicable to elastomeric materials which are used as the upper wearing layer of such areas, and to elastomeric materials used as underlayers in composite sports surfacing systems. It is applicable both to prefabricated sheet materials and to materials formed by casting of liquid systems cured in-situ	**Scope:** This European Standard specifies a method for the determination of the tensile properties of materials used as surfaces for sports areas. It is applicable to elastomeric materials which are used as the upper wearing layer of such areas, and to elastomeric materials used as underlayers in composite sports surfacing systems. It is applicable both to prefabricated sheet materials and to materials formed by casting of liquid systems cured in-situ

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Võtmesõnad: area, floor coverings, floor for sporting activities, materials, planks, plastics, properties, rubber, sheets, sports areas, sports facilities, stretching strain, surfaces, synthetic surfacings, synthetic turf, tensile strength, tensile testing, testing

EUROPEAN STANDARD

NORME EUROPÉENNE

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English version

Surfaces for sports areas - Determination of tensile properties of synthetic sports surfaces

Sols sportifs - Détermination des caractéristiques de traction des surfaces sportives synthétiques

Sportböden - Bestimmung der Zugfestigkeitseigenschaften von Kunststoffflähen

This European Standard was approved by CEN on 12 December 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

This document (EN 12230:2003) 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 October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

This standard is one of a series of methods of test for sports surfaces. It is based on ISO 1926 with modification of the procedure for preparation of the test specimens to take account of the form in which sports surfacing materials are normally produced.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies a method for the determination of the tensile properties of materials used as surfaces for sports areas. It is applicable to elastomeric materials which are used as the upper wearing layer of such areas, and to elastomeric materials used as underlayers in composite sports surfacing systems. It is applicable both to prefabricated sheet materials and to materials formed by casting of liquid systems cured in-situ.

NOTE If the nature of the sports surface is such that a properly representative test piece cannot be prepared in the manner described in this standard, then determination of tensile properties should not be attempted for quality control purposes, or as a predictor of performance in use. With such materials, it might be more appropriate to determine their compressive properties or other dynamic characteristics for these purposes.

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).

ISO 291, *Plastics — Standard atmospheres for conditioning and testing.*

3 Term and definition

For the purposes of this European Standard, the following term and definition applies.

3.1
peak to valley height
geometric measure of the roughness of the top of the surfacing, being the magnitude of regularly or irregularly recurring vertical deviations of a surface from a reference surface, when the distances between these deviations is a low multiple of their depth

4 Principle

A test specimen of given shape is subjected to a tensile stress transmitted to it by means of a suitable device and the resulting stress-strain curve is plotted, from which various parameters are subsequently deduced.

5 Apparatus

5.1 Test machine

A test machine, such that:

a) the test specimen can be held in the fixing grips of the test apparatus, these fixing grips meeting the following conditions:

   — the test specimen can be held sufficiently tightly to avoid slipping;

   — no localized pressure that could tear or rupture the ends is exerted on any part of the test specimen;

b) the movable grip can be moved away from the fixed grip at a constant speed of (50 ± 5) mm/min in a direction parallel to the longitudinal axis of the test piece, under no load;