Surfaces for sports areas - Synthetic turf and needle-punched surfaces primarily designed for outdoor use - Part 1: Specification for synthetic turf

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 15330-1:2007 sisaldab Euroopa standardi EN 15330-1:2007 ingliskeelset teksti. Käesolev dokument on jõustatud 31.05.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 15330-1:2007 consists of the English text of the European standard EN 15330-1:2007. This document is endorsed on 31.05.2007 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 performance and durability characteristics for synthetic turf sports surfaces used primarily outdoors. Five categories of surface are covered, each based on the principal sporting use of the surface, as follows: surfaces designed primarily for hockey; surfaces designed primarily for association football; surfaces designed primarily for rugby union for training purposes;	**Scope:** This European Standard specifies performance and durability characteristics for synthetic turf sports surfaces used primarily outdoors. Five categories of surface are covered, each based on the principal sporting use of the surface, as follows: surfaces designed primarily for hockey; surfaces designed primarily for association football; surfaces designed primarily for rugby union for training purposes;

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English Version

Surfaces for sports areas - Synthetic turf and needle-punched surfaces primarily designed for outdoor use - Part 1: Specification for synthetic turf

Sols sportifs - Surfaces en gazon synthétique et surfaces aiguilletées principalement destinées à l'usage en extérieur - Partie 1: Spécifications pour le gazon synthétique

Sportböden - Überwiegend für den Außenbereich hergestellte Kunststoffrasenflächen und vernadelte Beläge - Teil 1: Festlegungen für Kunststoffrasen

This European Standard was approved by CEN on 10 February 2007.

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 CEN 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 CEN Management Centre has the same status as the official versions.

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

EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 15330-1:2007) 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 September 2007, and conflicting national standards shall be withdrawn at the latest by September 2007.

EN 15330 consists of the following parts, under the general title *Surfaces for sports areas — Synthetic turf and needle-punched surfaces primarily designed for outdoor use:*

— *Part 1: Specification for synthetic turf*

— *Part 2: Specification for needle-punched surfaces*

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

1 Scope

This European Standard specifies performance and durability characteristics for synthetic turf sports surfaces used primarily outdoors. Five categories of surface are covered, each based on the principal sporting use of the surface, as follows:

surfaces designed primarily for hockey;

surfaces designed primarily for association football;

surfaces designed primarily for rugby union for training purposes;

NOTE Under the Laws of the Game of Rugby Union, surfaces for rugby union matches have to comply with IRB Regulation 22.

surfaces designed primarily for tennis; and

surfaces designed for multi-sports use.

The requirements are intended to apply to surfaces used for community, educational and recreational sport. For professional and elite levels of competition, many sports governing bodies have published their own specifications; the requirements of the sports governing bodies might differ from those detailed in this European Standard and facility developers are advised to ensure that they select surfaces offering the correct level of performance for the level of competition played on the pitch or court.

This European Standard is based on type approval testing of products in the laboratory. Selected requirements may also be used on site to assess the suitability of installed surfaces. Guidance on the testing of installations is given in Annex A.

Some of the surfaces covered by this European Standard are designed to allow users to wear footwear fitted with studs. An example of a typical stud is given in EN 15306. For the purposes of this European Standard, multi-dimpled shoe profiles often found on footwear used on sand-filled or non-filled synthetic turfs are not considered to be studs.

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

EN 933-1, *Tests for geometrical properties of aggregates – Part 1: Determination of particle size distribution – Sieving method*

EN 1097-3, *Tests for mechanical and physical properties of aggregates – Part 3: Determination of loose bulk density and voids*

EN 1177, *Impact absorbing playground surfacing – Safety requirements and test methods*

EN 1969, *Surfaces for sports areas – Determination of thickness of synthetic sports surfaces*

EN 12230, *Surfaces for sports areas – Determination of tensile properties of synthetic sports surfaces*

EN 12235, *Surfaces for sports areas – Determination of vertical ball behaviour*

EN 12228:2002, *Surfaces for sports areas – Determination of joint strength of synthetic surfaces*

EN 12229, *Surfaces for sports areas – Procedure for the preparation of synthetic turf and needle-punch test pieces*

EN 12234, *Surfaces for sports areas – Determination of ball roll behaviour*

EN 12616, *Surfaces for sports areas – Determination of water infiltration rate*

EN 13036-4:2003, *Road and airfield surface characteristics – Test methods – Part 4: Method for measurement of slip/skid resistance of a surface – The pendulum test*

EN 13036-7, *Road and airfield surface characteristics – Test methods – Part 7: Irregularity measurement of pavement courses: the straightedge test*

EN 13672, *Surfaces for sports areas – Determination of resistance to abrasion of non-filled synthetic turf*

EN 13744, *Surfaces for sports areas – Procedure for accelerated ageing by immersion in hot water*

EN 13864, *Surfaces for sports areas - Determination of tensile strength of synthetic yarns*

EN 13865, *Surfaces for sports areas – Determination of angled ball behaviour – Tennis*

EN 14808, *Surfaces for sports areas – Determination of shock absorption*

EN 14809, *Surfaces for sports areas – Determination of vertical deformation*

EN 14836, *Synthetic surfaces for outdoor sports areas - Exposure to artificial weathering*

EN 14955, *Surfaces for sports areas – Determination of composition and particle shape of unbound mineral surfaces for outdoor sports areas*

EN 15301-1, *Surfaces for sports areas – Part 1: Determination of rotational resistance*

EN 15306, *Surfaces for outdoor sports areas — Exposure of synthetic turf to simulated wear*

EN 20105-A02, *Textiles – Tests for colour fastness – Part A02: Grey scale for assessing change in colour (ISO 105-A02:1993)*

EN ISO 13934-1, *Textiles – Tensile properties of fabrics – Part 1: Determination of maximum force and elongation at maximum force using the strip method (ISO 13934-1:1999)*

ISO 48, *Rubber, vulcanized or thermoplastic – Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

ISO 1763, *Carpets – Determination of number of tufts and/or loops per unit length and per unit area*

ISO 2549, *Textile floor coverings – Hand-knotted carpets – Determination of tuft leg length above the woven ground*

ISO 4919, *Textile floor coverings – Determination of tuft withdrawal force*

ISO 8543, *Textile floor coverings – Methods for determination of mass*

ISO 11357-3*, Plastics – Differential scanning calorimetry (DSC) – Part 3: Determination of temperature and enthalpy of melting and crystallization*