



# SLOVENSKI STANDARD

## SIST EN 13672:2005

01-januar-2005

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**Podloge za športne dejavnosti – Ugotavljanje odpornosti proti obrusu umetne trave, ki ni polnjena s peskom**

Surfaces for sports areas - Determination of resistance to abrasion of non-filled synthetic turf

Sportböden - Bestimmung des Verschleißverhaltens von ungefülltem Kunststoffrasen

Sols sportifs - Détermination de la résistance à l'abrasion des gazons synthétiques non chargés

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**ICS:**

97.220.10      Športni objekti                                      Sports facilities

**SIST EN 13672:2005**

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EUROPEAN STANDARD

EN 13672

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2004

ICS

English version

## Surfaces for sports areas - Determination of resistance to abrasion of non-filled synthetic turf

Sols sportifs - Détermination de la résistance à l'abrasion des gazons synthétiques non chargés

Sportböden - Bestimmung des Verschleißverhaltens von ungefülltem Kunststoffrasen

This European Standard was approved by CEN on 14 June 2004.

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.

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

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

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## Foreword

This document (EN 13672:2004) 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 February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.

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, 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.

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**EN 13672:2004 (E)****1 Scope**

This document describes a method for the determination of the wear resistance of a non-filled synthetic turf surface using an abrasive wheel under laboratory conditions. It is applicable to non-filled synthetic turf with a pile height greater than 15 mm.

**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 ISO 5470-1, *Rubber- or plastics-coated fabrics — Determination of abrasion resistance – Taber abrader (ISO 5470-1:1999)*.

**3 Terms and definitions**

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

**3.1****wear resistance**

loss of mass from the pile of synthetic turf

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**4 Principle**

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A test piece is abraded by the action of a pair of abrasive wheels on a rotating test piece. The resulting loss in mass is determined.

**5 Apparatus**

- 5.1 *Abrasion apparatus*, as specified in EN ISO 5470-1.
- 5.2 *Freshly re-faced abrasive wheels H18*, acting under a load of 1 000 g per wheel.
- 5.3 *Re-facing disc S11*.
- 5.4 *Balance*, capable of weighing to an accuracy of  $\pm 0,001$  g.

**6 Sampling and preparation of test pieces**

Take four test pieces with edge length of 100 mm across the sample, not closer than 200 mm to the edge of the sample. Remove any loose particles from the test pieces.

**7 Conditioning**

Condition the test pieces for a minimum of 3 h at the test temperature. If the material is known to be sensitive to humidity, condition for a minimum of 48 h at standard temperature and relative humidity.

Unless otherwise specified, the standard temperature shall be  $(23 \pm 2)$  °C and the standard relative humidity shall be  $(50 \pm 5)$  %.

## 8 Procedure

8.1 Weigh the test piece to an accuracy of 0,001 g.

8.2 Before each test, re-face the abrasive wheels using re-facing disc S11.

8.3 Position the test piece in the abrasion apparatus (5.1). Lower the loaded abrasive wheels onto the surface of the test piece and start the machine. After 2 000 revolutions stop the machine. Remove the test piece from the machine. Remove any loose debris from the test piece by vacuuming. Re-weigh the test piece. Re-face the abrasive wheels with re-facing disc .

Repeat this procedure after further 3 000 revolutions so that the test piece is subjected to a total of 5 000 revolutions.

8.4 Repeat the procedure on the other three test pieces.

## 9 Calculation and expression of results

Record the mass loss after 2 000 and 5 000 revolutions for each test piece. Calculate the arithmetic mean of the mass loss for the four test pieces after 2 000 and 5 000 revolutions.

Express the results in absolute figures to the nearest of 0,01 g and as the percentage mass loss to the nearest of 0,01 %.

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## 10 Test report

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The test report shall include the following information:

- a) reference to this document, i.e. EN 13672:2004;
- b) complete identification of the product tested, including type, source, colour, manufacturer's reference and previous history;
- c) method of sampling;
- d) test temperature and relative humidity, if required;
- e) arithmetic mean of the mass loss after 2 000 and 5 000 revolutions, expressed in grams and as a percentage.