



## SLOVENSKI STANDARD

### SIST EN 14955:2006

01-februar-2006

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#### **Površine za športne dejavnosti – Ugotavljanje sestave in oblike delcev v oblogah iz nevezanih mineralov za zunanje športne dejavnosti**

Surfaces for sports areas - Determination of composition and particle shape of unbound mineral surfaces for outdoor sports areas

Sportböden - Bestimmung der Zusammensetzung und der Kornform von ungebundenen mineralischen Belägen für Sportböden für den Außenbereich

Sols sportifs - Détermination de la composition et de la forme des particules des sols minéraux non liés pour les terrains de sport de plein air

**Ta slovenski standard je istoveten z: EN 14955:2005**

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#### **ICS:**

97.220.10 Športni objekti Sports facilities

**SIST EN 14955:2006**

**en,fr,de**

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EUROPEAN STANDARD

EN 14955

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2005

ICS 97.220.10

English Version

## Surfaces for sports areas - Determination of composition and particle shape of unbound mineral surfaces for outdoor sports areas

Sols sportifs - Détermination de la composition et de la forme des particules des sols minéraux non liés pour les terrains de sport de plein air

Sportböden - Bestimmung der Zusammensetzung und der Kornform von ungebundenen mineralischen Belägen für Sportböden für den Außenbereich

This European Standard was approved by CEN on 12 September 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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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## Foreword

This European Standard (EN 14955:2005) 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 May 2006, and conflicting national standards shall be withdrawn at the latest by May 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, 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 14955:2005 (E)****1 Scope**

This European Standard specifies a method for determining the composition and particle shape of unbound minerals for outdoor sports surfaces.

**2 Principle**

The grains of unbound minerals are separated manually according to shape. The composition of each different shape is expressed as a percentage by mass. Each shape is described in terms of texture, structure and colour using the classification chart (see Figures 1 and 2).

**3 Apparatus**

**3.1 Classification chart.**

**3.2 Trowel or cutting implement.**

**3.3 Pointed separator.**

**3.4 Analytical balance or scale.**

**3.5 Smooth surface**, ideally glass or an illuminated frame.

**3.6 Oven**, capable of being maintained at  $(105 \pm 5)^\circ\text{C}$ .

**3.7 Optical microscope**, having a minimum enlargement power of 20 x.

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**4 Sampling****4.1 From a stock pile**

If taking a sample from a stock pile, take the sample as near to the middle of the pile as possible.

**4.2 From a bag**

If taking a sample from a bag, turn the bag upside down and shake it to intermix the particles. Having opened the bag, take the sample from as near to the centre of the bag as possible.

**4.3 From a field location**

If taking a sample in the field, cut vertically through the strata concerned taking particles from the top, middle and bottom of the profile.

## 5 Conditioning

Dry the sample in an oven at a temperature of  $(105 \pm 5)$  °C for 24 h. After allowing the sample to cool down to room temperature, mix the sample so that all the particles are thoroughly integrated.

## 6 Procedure

**6.1** For samples consisting of particles of greatest dimension  $\geq 1$  mm, follow the procedure described in 6.2. For samples consisting of particles of greatest dimension  $< 1$  mm, follow the procedure described in 6.3.

**6.2** Take 10 g of a representative specimen removed from the centre of the sample.

Lay the specimen out on a smooth surface and separate all the particles into different piles according to their particle shape in accordance with Figure 1.

If the specimen contains particles of greatest dimension  $\geq 3$  mm, but  $\leq 6$  mm, increase the mass of the specimen to 15 g.

Observe and record the texture, structure and colour for the pile of each shape of particle.

Weigh each of the piles and calculate the mass composition for each particle shape as a percentage of the whole.

**Table 1 – Attribute classification**  
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Attribute	Description
Shape	Round, flat, irregular, angular
Texture	Rough, polished
Structure	Open, dense
Colour	

**6.3** Reduce the specimen to a volume small enough to be put under a microscope and place it onto a glass slide under the microscope. Identify the shape, texture and structure by observations through the microscope and record the observations.

Repeat the observations on five more samples and report the modal shape, texture and structure over all six samples.

## 7 Expression of results

Express the results as the shape, texture, structure and colour of the specimens (see Table 1). For specimens taken from samples consisting of particles of greatest dimension 1 mm or larger, report also the percentage composition by mass.

**EN 14955:2005 (E)****8 Test report**

The test report shall include the following:

- a) reference to this European Standard, i.e. EN 14955:2005;
- b) type of material under test;
- c) nature of the specimen;
- d) source of the sample;
- e) overall thickness of the area from which the sample was taken;
- f) results, presented in accordance with the chart in Figure 2.

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Assessment of particles in unbound mineral surfaces				
Attribute	Test Report Result			
Shape	Rounded	Angular	Irregular	Flat
	%	%	%	%
Texture	Rough			
	Polished			
	<p><b>iTeh STANDARD PREVIEW</b> (standards.iteh.ai)</p>			
	Open			
Structure	<p style="text-align: center;"><a href="https://standards.iteh.ai/catalog/standards/sist/339b143f-a0bb-47de-9434-677a7aa57a59/sist-en-14955-2006">SIST EN 14955:2006</a> <a href="https://standards.iteh.ai/catalog/standards/sist/339b143f-a0bb-47de-9434-677a7aa57a59/sist-en-14955-2006">https://standards.iteh.ai/catalog/standards/sist/339b143f-a0bb-47de-9434-677a7aa57a59/sist-en-14955-2006</a></p>			
	Dense			
Colour				

**Description**

<b>Rounded</b>	No flat faces, rounded corners, almost cylindrical.
<b>Angular</b>	Strongly developed faces with sharp corners. Cubical.
<b>Irregular</b>	Has both rounded and angular faces.
<b>Flat</b>	Majority flat faced, elongated, thin, greater in length than height.
<b>Polished</b>	Smooth.
<b>Rough</b>	Pitted.

**Figure 1 – Chart for test report results**