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**Podloge za športne dejavnosti - Preskusna metoda za ugotavljanje rezidualne deformacije umetnih ali organskih polnil po statični obremenitvi**

Surfaces for sports areas - Test method for the determination of the residual deformation of synthetic or organic infill granules after static load

Sportböden - Prüfverfahren zur Bestimmung der Restverformung von synthetischen oder organischen Einstreugranulaten nach statischer Belastung

Sols sportifs - Méthode d'essai de détermination de la déformation résiduelle de granulats de remplissage synthétiques ou organiques après application d'une charge statique

[SIST EN 17467:2022](http://standardsiteh.ai/categorie/produit/544ae0d1-e675-4501-b0f5-9025f3e01e29/sist-en-17467-2022)

**Ta slovenski standard je istoveten z: EN 17467:2022**

**ICS:**

97.220.10      Športni objekti      Sports facilities

**SIST EN 17467:2022****en,fr,de**

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EUROPEAN STANDARD

EN 17467

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2022

ICS 97.220.10

English Version

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This European Standard was approved by CEN on 24 January 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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<b>Contents</b>		<b>Page</b>
<b>European foreword</b> .....		<b>3</b>
<b>1</b>	<b>Scope</b> .....	<b>4</b>
<b>2</b>	<b>Normative references</b> .....	<b>4</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>4</b>
<b>4</b>	<b>Safety</b> .....	<b>4</b>
<b>5</b>	<b>Method</b> .....	<b>5</b>
<b>5.1</b>	<b>Test equipment</b> .....	<b>5</b>
<b>5.2</b>	<b>Test samples</b> .....	<b>5</b>
<b>5.3</b>	<b>Conditioning</b> .....	<b>5</b>
<b>5.4</b>	<b>Test procedure</b> .....	<b>6</b>
<b>6</b>	<b>Calculation and expression of results</b> .....	<b>7</b>
<b>7</b>	<b>Test report</b> .....	<b>7</b>

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## European foreword

This document (EN 17467:2022) has been prepared by Technical Committee CEN/TC 217 “Surfaces for sports areas”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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## EN 17467:2022 (E)

### 1 Scope

This document specifies a test method for the determination of the residual deformation and visual inspection of synthetic or organic granules used in synthetic turf for sports surfaces after static load.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 932-2, *Tests for general properties of aggregates - Part 2: Methods for reducing laboratory samples*

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

ISO 5893, *Rubber and plastics test equipment — Tensile, flexural and compression types (constant rate of traverse) — Specification*

### 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <https://www.electropedia.org/>

#### 3.1

##### **residual deformation**

difference between the initial thickness and the thickness of a sample layer of granules measured 30 min after the removal of the load

#### 3.2

##### **visual inspection**

assessment by eye for signs of conglutination or oil secretion of the granules

#### 3.3

##### **particle grading, d**

starting with the smallest sieve, d is the biggest sieve with less than 10 % of the sample passing (between 0 % and 10 % of the infill total weight is smaller than d)

#### 3.4

##### **particle grading, D**

starting from the biggest sieve, D is the smallest sieve with less than 10 % of the sample being retained (between 0 % and 10 % of the infill total weight is bigger than D)

### 4 Safety

Adequate safety measures shall be in place to maintain a safe working area in accordance with appropriate regulations.

## 5 Method

### 5.1 Test equipment

**5.1.1** A loading device in accordance with ISO 5893 to bring a load with a constant speed of 5 mm/min  $\pm$  0,1 mm/min.

**5.1.2** Pressure foot; circular/flat with a diameter of minimum 28 mm and maximum 32 mm.

**5.1.3** Two polished rectangular steel plates with dimensions of 150 mm x 60 mm ( $\pm$ 5 mm) and a thickness of 12 mm ( $\pm$ 1 mm).

The design of the two plates shall allow them to be clamped together using an M10 threaded bar and nuts, as shown in Figure 1.

On the upper face of the lower plate a rectangle shall be marked, measuring 80 mm x 30 mm (2 400 mm<sup>2</sup>) shall be engraved or marked onto the surface.

**5.1.4** A polished aluminium plate; dimensions 110 mm x 65 mm  $\pm$ 5 mm, thickness 0,5 mm  $\pm$ 0,1 mm.



**Figure 1** — Schematic view of sample holder  
<https://standards.itih.ai/standards/en/standards/sist-en-17467-2022>

**5.1.5** Air circulating oven capable of maintain the test sample and sample holder at a temperature of 65  $\pm$ 2 °C.

### 5.2 Test samples

**5.2.1** Test specimens shall be obtained using the procedure specified in EN 932-2. For each test specimen the mass shall be 120 % to 170 % of the mass needed to fill the marked area on the lower steel plate.

**5.2.2** Whenever possible ensure the test sample is made from a single layer of granules that fully covers the inside area of the marked rectangle (80 mm x 30 mm). If, however, the particle size distribution of the granules means this is not possible, ensure the thickness of the sample layer is  $\pm$ 20 % of the maximum grain size D.

### 5.3 Conditioning

**5.3.1** If necessary, pre-condition the laboratory sample in a ventilated oven with a temperature not exceeding 40 °C for at least 24 h. Preconditioning is required if the sample is moist or wet, for example, as a result of sampling outdoors.