SLOVENSKI STANDARD
SIST EN 14974:2019

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Nadomešča:
SIST EN 14974:2006+A1:2010

Skejt parki (poligoni za uporabnike rolk ali podobne opreme za šport s koleščki ter kolesa BMX) - Varnostne zahteve in preskusne metode

Skateparks - Safety requirements and test methods

Skateparks - Sicherheitstechnische Anforderungen und Prüfverfahren

Skateparks - Exigences de sécurité et méthodes d'essai

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English Version

Skateparks - Safety requirements and test methods

Skateparks - Exigences de sécurité et méthodes d'essai

Skateparks - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 5 November 2018.

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

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European foreword

This document (EN 14974:2019) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational facilities and equipment”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by November 2019, and conflicting national standards shall be withdrawn at the latest by November 2019.

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.

This document supersedes EN 14974:2006+A1:2010.

This edition contains the following technical changes in regards to EN 14974:2006+A1:2010:

— requirements revised;

— test methods revised;

— document restructured;

— editorially updated.

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

Introduction

This standard primarily targets planners, manufacturers, constructors, public authorities, operators, technical experts and inspectors of skate elements and/or skateparks.

The purpose of this European Standard is to specify the safety requirements, which to a large extent protect users and third parties (e.g. spectators) from hazards.

The use of skateparks is connected with sporting risks. Sporting skills and the use of suitable roller sports equipment in combination with appropriate protective equipment essentially reduces the risk of accident.

Not all possible forms of design, combinations, materials and/or structural elements of skateparks and/or skate elements will be specified within this European Standard, as they are constantly developing. Skateparks are often characterised by interconnected flowing rolling surfaces and elements. With regard to these specific skate elements the general requirements of this standard need to be considered.

It is essential that the development, construction and maintenance are carried out by competent persons with sufficient training, experience and knowledge of this standard, as well as an understanding of roller sports.

1 Scope

This document applies to skateparks for public use intended for the use of skateboards, other roller sports equipments and BMX bikes.

It specifies safety requirements and requirements for testing and marking, information supplied by the manufacturer, information for users, as well as for inspection and maintenance to protect users and third parties (e.g. spectators) from hazards, as far as possible, when using a skatepark as intended, or as can be reasonably expected.

This standard does not apply to bike facilities modelled from ground, gravel or rock.

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 206, *Concrete — Specification, performance, production and conformity*

EN 300:2006, *Oriented Strand Boards (OSB) — Definitions, classification and specifications*

EN 312, *Particleboards — Specifications*

EN 335:2013, *Durability of wood and wood-based products — Use classes: definitions, application to solid wood and wood-based products*

EN 338:2016, *Structural timber — Strength classes*

EN 351-1, *Durability of wood and wood-based products — Preservative-treated solid wood — Part 1: Classification of preservative penetration and retention*

EN 599-1, *Durability of wood and wood-based products — Efficacy of preventive wood preservatives as determined by biological tests — Part 1: Specification according to use class*

EN 636, *Plywood — Specifications*

EN 789, *Timber structures — Test methods — Determination of mechanical properties of wood based panels*

CEN/TS 1099, *Plywood — Biological durability — Guidance for the assessment of plywood for use in different use classes*

EN 1992-1-1, *Eurocode 2: Design of concrete structures — Part 1-1: General rules and rules for buildings*

EN 10020, *Definition and classification of grades of steel*

EN 13670, *Execution of concrete structures*

EN 14487 (all parts), *Sprayed concrete*

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:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
skatepark
facility with one or more skate elements and sport-specific areas for users of skateboards or similar roller sports equipment as well as BMX bikes

3.2
skate element (obstacle)
sport-specific element, which can be used for rolling, jumping, grinding or sliding

Note 1 to entry: A skate element may consist of one element or a group of elements.

3.3
cluster
two or more separate skate elements in close proximity to each other providing combinations and continuity

3.4
rolling surface
part of the skate element or the skatepark intended for rolling

3.5
transition
radial part of the rolling surface

3.6
bank
linear inclined part of the rolling surface

3.7
flat
horizontal rolling surface

3.8
grinding surface
part of the skate element intended for grinding and/or sliding

3.9
extension
raised part of a skate element with continuation of the rolling surface

3.10
vert
vertical area of the rolling surface at the top of the transition

3.11
coping
circular tube which is attached to the top of the rolling surface

3.12
pool coping
form of coping made from stone, concrete or other similar materials

3.13
safety zone
space around a skate element intended for the safety of the user, as well as third parties

3.14
free-fall height
vertical distance between the supporting surfaces and the next lowest flat surface beneath this

Note 1 to entry: Supporting surfaces are horizontal rolling surfaces and surfaces intended for standing. Exceptions are described in relevant subclauses of Clause 6.

3.15
platform
horizontal standing surface of a skate element and/or group of elements with a barrier

3.16
table
horizontal rolling surface of a skate element and/or group of elements without a barrier

3.17
foot plate
part of the rolling surface connecting the skate element with the flat

Note 1 to entry: e.g. a transition plate.

3.18
barrier
construction which prevents the user and/or roller sports equipment from falling from a height

3.19
competent person
person with sufficient training, experience and knowledge of this standard, as well as an understanding of roller sports or with a particular qualification required for properly performing their duty

3.20
gap
space between two rolling surfaces which is to be jumped over

3.21
curb/ledge
skate element for sliding and/or grinding

3.22
rail
elevated tube or bar on a rolling surface, stair or flat for sliding and/or grinding

3.23
bowl
combination of several curved rolling surfaces or other elements, blending into each other in various ways creating a functional skate element

3.24
wall ride
skate element where its rolling surface turns into a wall

3.25
mini ramp
skate element consisting of two opposite transitions without vert with a flat between them

3.26
vert ramp (half-pipe)
skate element consisting of two opposite transitions with vert with a flat between them

Note 1 to entry: The term "half-pipe" is actually the name for two opposite transitions without a flat, but is often used colloquially to refer to a vert ramp.

3.27
roll-in
rounded top edge of a skate element

4 Materials

4.1 General

Materials shall be selected and protected so that the structural integrity of the equipment manufactured from does not deteriorate before the next relevant maintenance inspection.

The requirements in 4.2 and 4.3 relating to resistance to weather conditions may be ignored if the skatepark is installed in indoor or covered areas.

No substance that can adversely affect health shall be present in the skatepark.

NOTE The restrictions on the marking and use of certain dangerous substances and preparations are ruled by Regulation (EC) No 1907/2006.

4.2 Timber and associated products

4.2.1 General

Skate elements made of timber components shall be protected against rotting.

Consideration shall be given to the selection of timber and/or chemical components used. Some timbers discolour surfaces and some chemical components accelerate corrosion of metals.

Constructive wood preservation measures shall be used, e.g. skate elements made of timber components shall allow for water to drain or drop freely from them.

4.2.2 Solid wood

For outdoor use, solid wood shall meet the biological attack requirements of use class 4 according to EN 335:2013. This natural or conferred durability of solid wood shall meet the levels required by EN 351-1 and EN 599-1.

For structural use, solid wood shall be of at least class C 24 according to EN 338:2016.

4.2.3 Laminated wood

For outdoor use, laminated wood shall meet the requirements of use class 4 according to EN 335:2013. Laminated wood with bondings shall be of structural quality, taking into account the intended use of it.

4.2.4 Plywood panel

Plywood panels shall meet the biological attack requirements of use class 2 for indoor use and of use class 3 for outdoor use, according to EN 335:2013 and CEN/TS 1099.

For structural use and climatic resistance, the requirements for plywood panels according to EN 636 shall be met. The longitudinal modulus of elasticity and shear stress (mean value in each direction) and bending, compressive and shear strength (characteristic value in each direction) shall be specified according to EN 789.

4.2.5 Oriented strand boards (OSB)

Oriented strand boards shall meet the biological attack requirements of use class 2 for indoor use according to EN 335:2013. For structural use the requirements of class OSB 4 shall be met according to EN 300:2006. In addition, its mechanical properties, measured in accordance with EN 789, shall be defined.

The use of oriented strand boards outdoors is not permissible.

4.2.6 Particle boards (chipboards)

Particle boards shall only be used for indoor skateparks. They shall meet the biological attack requirements of use class 2 according to EN 335:2013.

For structural use, particle boards shall comply with EN 312.

4.3 Metals

Metal components shall be resistant to weathering under atmospheric conditions.

Stainless steel according to EN 10020 shall not be used as a grinding surface.

4.4 Concrete

4.4.1 Concrete for skateparks and skate elements shall comply with EN 206 and EN 1992-1-1 (Eurocode 2) together with relevant national annexes (e.g. concrete mix, exposure classes, reinforcement, etc.).

In situ concrete and precast concrete shall comply with EN 13670.

Sprayed concrete shall comply with EN 14487 (all parts).

4.4.2 Concrete for rolling surfaces shall comply with the minimum requirement of strength class given in table 1.

Table 1 — Types of concrete to be used

Concrete used for	concrete strength class
Rolling surface	C 35/45

NOTE Further detail on requirements is given in national regulations.