SLOVENSKI STANDARD
SIST EN 1176-10:2023

01-november-2023

Nadomešča:

SIST EN 1176-10:2008

Oprema in podloge otroških igrišč - 10. del: Dodatne posebne varnostne zahteve in preskusne metode za zaključene igralne enote

Playground equipment and surfacing - Part 10: Additional specific safety requirements and test methods for fully enclosed play equipment

Spielplatzgeräte und Spielplatzböden - Teil 10: Zusätzliche besondere sicherheitstechnische Anforderungen und Prüfverfahren für vollständig umschlossene Spielgeräte

Équipements et sols d'aires de jeux - Partie 10 : Exigences de sécurité et méthodes d'essai complémentaires spécifiques aux équipements de jeux totalement fermés

Ta slovenski standard je istoveten z: EN 1176-10:2023

ICS:

97.200.40	Igrišča	Playgrounds

SIST EN 1176-10:2023 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1176-10

September 2023

ICS 97.200.40

Supersedes EN 1176-10:2008

English Version

Playground equipment and surfacing - Part 10: Additional specific safety requirements and test methods for fully enclosed play equipment

Équipements et sols d'aires de jeux - Partie 10 : Exigences de sécurité et méthodes d'essai complémentaires spécifiques aux équipements de jeux totalement fermés

Spielplatzgeräte und Spielplatzböden - Teil 10: Zusätzliche besondere sicherheitstechnische Anforderungen und Prüfverfahren für vollständig umschlossene Spielgeräte

This European Standard was approved by CEN on 23 July 2023.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

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

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN 1176-10:2023 E

Contents

Page

European foreword

This document (EN 1176-10:2023) 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 March 2024, and conflicting national standards shall be withdrawn at the latest by March 2024.

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 1176-10:2008.

EN 1176-10:2023 includes the following significant technical changes with respect to EN 1176-10:2008:

a) 1 Scope. Minor amendment made to simplify and to align with the current approach within standards.

b) Terms and definitions updated:

   1. 3.11 adult access route. New additional definition introduced

   2. 3.12 bouncing element in indoor play structures. New additional definition;

   3. 3.13 spinning pole. New additional definition introduced.

c) 4.2.1 Materials including flammability. The term “where practical” is introduced as it is not possible to test some minor components;

d) 4.2.2.1 Adult access route. Re-named from evacuation routes to be more logical. Amendments made and agreed in line with knowledge and experience gained since EN 1176-10 was issued in 2008;

e) 4.2.2.3 Table 1 revised to align with the amendments in 4.2.2 and for clarity of its content;

f) 4.2.2.4 Capacity. The formula has been revised as agreed to result in realistic operating levels;

g) 4.3 Design and manufacture. Some provisions under this general heading included in EN 1176-10:2008 have been excluded where they can be referenced in Part 1, thus aligning with current practice. Additional provisions and changes have though been noted;

h) 4.3.2.1 Climbability. Some minor additions/improvements made to the wording.

i) 4.3.4.2 Falling space and impact areas. This revision incorporates additional information to improve understanding of the requirements in this document;

j) 4.3.4.3 Proximity to hard or projecting surfaces. An additional important provision, which was omitted in EN 1176-10:2008;

k) 4.3.5 Connections and platforms. The revised wording agreed is more relevant and informative.

l) 4.3.6 Rope features. Reference to preventing limbs passing through the standing surface now included;

m) 4.3.7 Foam play features. Additional provision agreed. It was not previously included

n) 4.4.1 Slides. Length provision amended as agreed in reference to EN 1176-3;

o) 4.4.2.7 Run-out section. The formula has been made clearer;

p) 4.4.3.3 The traveller. Additional wording incorporated improving this provision;

q) 4.4.3.7 and Figure 4. Figure 4 now covers both round section and flat seats with specific minimum underside ground clearances. Some minor adjustments have been made to the measurements shown in the 2008 version of Part 10 to align with current practice;

r) 4.4.4 Spinning poles. A completely new section;

s) 4.4.5.2 The floor surface provision for ball pools has been amended to be more appropriate;

t) 4.4.5.6 The minimum diameter of the balls is now specified at 60 mm aligning with current knowledge and experience;

u) 4.4.6 Cannons. A new provision whereby a minimum ball size is specified;

v) 4.4.7 Bouncing elements in indoor play structures. A new section;

w) 5.4 Instructions for maintenance have been amended to reflect currently accepted good practice;

x) 5.5 included specifically to define separately “safety measures and procedures shall be installed” and what they incorporate.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

1 Scope

This document is applicable to fully enclosed play equipment intended for installation inside and outside buildings, for children up to 14 years old, see 3.1.

The purpose of this document is to provide additional safety requirements covering particulars of these structures.

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 1021-1, *Furniture - Assessment of the ignitability of upholstered furniture - Part 1: Ignition source smouldering cigarette*

EN 1021-2, *Furniture - Assessment of the ignitability of upholstered furniture - Part 2: Ignition source match flame equivalent*

EN 1176-1:2017, *Playground equipment and surfacing - Part 1: General safety requirements and test methods*

EN 1176-3:2017, *Playground equipment and surfacing - Part 3: Additional specific safety requirements and test methods for slides*

EN 1176 (all parts), *Playground equipment and surfacing*

EN 1177, *Impact attenuating playground surfacing — Methods of test for determination of impact attenuation*

EN ISO 11925-2, *Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test (ISO 11925-2)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1176-1, EN 1176-3, EN 1177 and the following apply.

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

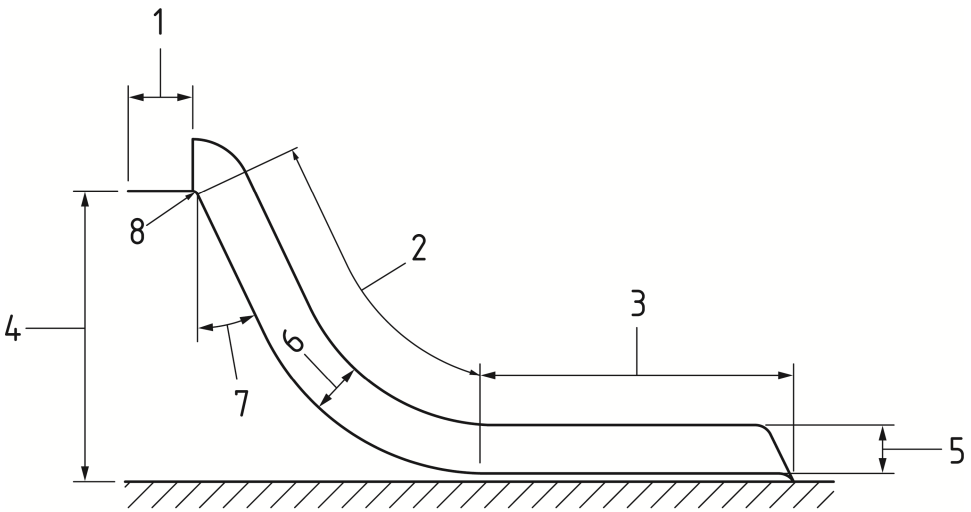
— ISO Online browsing platform: available at https://www.iso.org/obp/

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

3.1
fully enclosed play equipment
equipment and structure, including components and constructional elements with, or on which, children can play, that are within a three-dimensional enclosure with specified entrances and exits

3.2
drop slide
open-fronted, near vertical free-fall slide which continues into a concave curve to a near horizontal run-out section

Note 1 to entry: See Figure 1.



Key

1	starting section	5	lateral protection
2	sliding section (includes curve)	6	concave curve
3	run-out section	7	slide angle to vertical, 15° min
4	height of slide	8	radius, 100 mm min

Figure 1 — Example for a typical drop slide, side view

3.3
overhead track ride (rigid)
equipment on which children can travel by self-propulsion along a rigid fixed horizontal or inclined overhead track

3.4
terminus or starting point
area in which the user can reach the grip and/or "seat" and set the equipment in motion

3.5
area of travel
area in which the user can travel freely

3.6
overhead track
part of the structure that supports the traveller

3.7
traveller
moving part that, by influence of self-propulsion by the user, he/she moves along the overhead track

[SOURCE: EN 1176-4:2017+AC:2019, 3.7 - Modified: "self-propulsion" added and "cable" replaced by "overhead track"]

3.8
linkage element
part of the structure between the traveller and the "seat" and which often also provides grip

3.9
end stop
energy absorbing material positioned to cushion the impact of the traveller at the start and end of the overhead track

3.10
ball pool
enclosure designed to contain a depth of balls within which children can play

3.11
adult access route
path inside the equipment enabling (an) adult(s) access to bring an injured person to an exit

Note 1 to entry: This includes access/egress points.

3.12
bouncing element in indoor play structures
enclosed bouncing element with a uniform continuous surface, installed in a fully enclosed playground equipment that, due to its flexible characteristics, has the main purpose of allowing users to become airborne by jumping without the aid of other user(s)

3.13
spinning pole
circular disc with a vertical pole, specifically installed in fully enclosed playground equipment and designed for use by one or more users, that revolves around a central vertical axis without oscillation

4 Safety requirements

4.1 General

Fully enclosed play equipment shall conform to all parts of EN 1176 unless specified in this document.

4.2 Emergency procedures and fire safety management

4.2.1 Flammability of materials

Materials, components and composite parts used in the construction of enclosed play equipment shall be flame retardant. They shall be tested where practical to EN ISO 11925-2 or EN 1021-1 and EN 1021-2 or to an equivalent suitable test.

4.2.2 Evacuation

4.2.2.1 Adult access route

Adult access routes shall conform to Table 1.

An adult access route shall have a height of at least 1 300 mm and a width of at least 700 mm.

Play equipment may be placed inside the adult access route only if it meets the following requirements:

a) Play equipment that is placed along the vertical or horizontal surfaces of the adult access route shall not impede exit.

b) Moving play equipment hanging in the evacuation route, for example punching bags, shall allow easy passage through when using a manual pushing action.

c) Play equipment in the evacuation route shall not reduce the route to a width of less than 700 mm or a height of less than 1 300 mm.

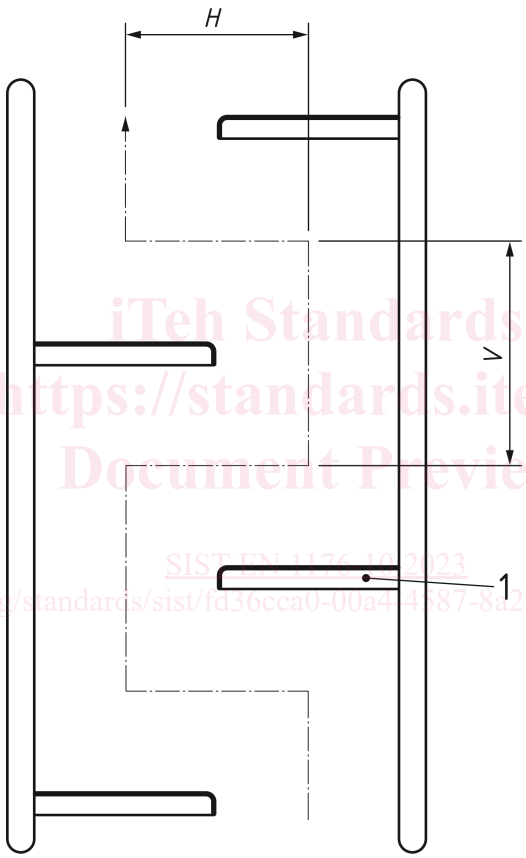
d) Surface mounted Items of play equipment placed inside the adult access route shall have a depth and height of no more than 400 mm and there shall be a distance of at least 1 000 mm between any pieces of such play equipment which reduce the dimensions of the adult access route.

4.2.2.2 Distance to the exit

The distance from any point in the equipment to the nearest exit shall be no greater than 18 m. There are some special cases for calculation of this distance:

a) for a slide, the distance is half the length of the sliding surface;

b) for a climbing tower, add vertical and horizontal distances between the geometric centres of the openings (see Figure 2).



Key

1 platform
H horizontal distance
V vertical distance

Figure 2 — Measuring distances within a climbing tower