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BSI Standards Publication

Playground equipment for children

Part 1: Replies to requests for interpretation of EN 1176:2017 and its parts (2018-2019)

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee SW/65, Children's playground equipment.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Playground equipment for children - Part 1: Replies to requests for interpretation of EN 1176:2017 and its parts (2018-2019)

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Kinderspielplatzgeräte - Teil 1: Antworten zu Interpretationsanfragen der Jahre 2018 und 2019 zur EN 1176:2017 und deren Teilen

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European foreword

This document (CEN/TR 17842-1:2022) 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.

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.

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.

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Introduction

Interpretations and no-action decisions

This document contains all interpretations since CEN/TR 16396 to the end of 2019. It should bring a close to all interpretations made to the 2020 version of the EN 1176 series and all of its specific parts that were also revised in 2020. It contains replies to requests for interpretations concerning the understanding of clauses in the parts of the EN 1176 series. The replies concern those requests that have resulted in an interpretation or a decision that no action is required as the standard is sufficiently clear.

An interpretation does not have the same status as the text of the standard. However, following an interpretation gives assurance that the relevant clause of the standard has been correctly applied.

An interpretation is a clarification of the meaning of the standard. This document covers requests from 2018 to the end of 2019.

Disclaimer

The interpretations have been prepared by the interpretation panel of CEN/TC 136/SC1 committee according to an agreed process and finally confirmed by the whole SC1 committee prior to responding back to the enquiring National Standard Body. The information contained herein should always be considered in association with the original EN 1176 series published in 2017.

Requests for interpretations may be submitted by a CEN member body through its national committee or by a CEN/TC 136 liaison (but not directly by an individual or a company) – in accordance with the interpretation protocols agreed by CEN/TC 136/SC 1. The requests are then channelled to the CEN/TC 136/SC 1 interpretation panel, which will then deal with the request.

A request for an interpretation may lead to:

a) *an interpretation of the standard with no action to the standard (no revision and no amendment)*

This should reflect a reasonable interpretation of how the standard should be used, taking into account:

1) the wording of the standard;

2) the rationale of the standard;

3) the history of the standard.

This is also applicable when it is agreed that the standard appropriately specifies how playground equipment is assessed.

b) *a proposal for an amendment of the standard*

This is applicable when it is agreed that the standard is deficient in some way.

NOTE Interpretation and no-action decisions are published in CEN/TR 16396 which will be updated on a regular basis. Proposals for amendments will be progressed as new work item proposals in accordance with CEN rules.

c) *a future revision*

It is not within the interpretation protocol to carry out new work that was not previously covered within the published EN 1176 series parts and clauses. Future work requests should always be raised by National Standard Bodies using the "Future work request template" to ensure full consideration is given to the necessity and possible consequences, before starting any new work on the EN 1176 series.

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Answers to requests for interpretations

Since requests for interpretations are submitted through a CEN member body, it is assumed that the member body will keep itself informed about decisions concerning the request and its progress and will itself inform the originator of the request, as appropriate.

The following information requests have been included in this document:

2018

2018-01 NO — Part 1 — 3.5, 3.20, 3.34-3, 4.2.8.2.3 General, 4.2.16.1 2nd Paragraph after Figure 26
2018-02 NO — Part 1— 4.2
2018-03 NO — Part 1 — 4.2.7.2
2018-04 NO — Part 1 — 4.2.7.2 part b and D.2.2
2018-05 DK — Part 2 — 3.13 and 4.6.3 in part 2:2017
2018-06 DS — Part 1 — 4.7 Hand support
2018-07 DS — Part 1 — 4.2.4.4 and Figure 10
2018-08 NO — Part 2 — Figure 6
2018-09 DE — Part 3 — 4.4.1 and Annex B
2018-10 NEN Part 1 — Figure D.7
2018-11 NEN—Part 1 — Figure D.13
2018-13 NO — Part 1 —4.2.7.3 Entrapment of clothing/hair
2018-15 NEN—Part 1 —4.2.16.1 General
2018-16 NEN—Part 1 —4.2.16

2019

2019-01 UNI Part 3 — 4.5, 4.7, 4.9.2
2019-09 LTL — Part 1 — 4.9 Entrapment
2019-10 LTL— Part 1 — 4.2.4.4 Barriers
2019-11 SIS — Part 1 — 6.2.16 Bouncing facilities
2019-12 HUN—Part 1 — 4.2.8.1
2019-13 DIN —Part 1 — 4.2.13 Chains
2019-14 UK — Part 2 — 3.13
2019-15 DIN— Part 1 — 4.2.16.1
2019-16 SIS — Part 2 — 3.13, 4.6.3 and 4.9
2019-17 SFS — Part 1 — 4.2.7.2
2019-18 SFS —Part 5 — 5.2.3

NOTE ASI — Austria, DS — Denmark, SFS — Finland, AFNOR — France, DIN — Germany, HUN – Hungary, SII — Israel, — LVS — Latvia, LTL – Lithuania, NBN— Belgium, NEN — Netherlands, SN — Norway, SIS — Sweden, SIST — Slovakia, SN — Switzerland, TSI — Türkiye, GB — United Kingdom.

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1 Scope

The purpose of this document is to publish replies to requests for interpretations, to all parts of the EN 1176 series, which have been drafted by the interpretation panel and confirmed by CEN/TC136/SC1.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

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/

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

4.1 General (interpretation request 2018-01 — Norway)

Question

1) The standard allows placing several small bouncing facilities – each approximately between 1 m² to 1,44 m² as for single users – together in a cluster, or in a row as part of a jump/stepping-trail thus letting each bouncing equipment's free space of 1 500 mm overlap each other's free space, or other equipment's falling space.

See Figure 1 below for example.

NB – We do appreciate that bouncing facilities demand free space/have forced movement as described in 3.6 and, therefore, our opinion is that this is not allowed. Due to several installations that we do see are in conflict with this, as others understand the standard differently, we therefore would like it to be clarified.

We also appreciate that equipment in a cluster – 3.20 – is allowed for equipment not involving free space/forced movement. A central and relevant question is therefore if one can deviate from the demands related to free space if one places several equipment's with or without forced movement in a cluster?

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Figure 1

MB Proposal:

To exclude any misunderstanding or "use" of the cluster clause, this definition could be more precise: That 3.20 includes information if a cluster is allowed or not for equipment with forced movement and in need of free space.

Reply

No action/interpretation

Regarding Free Space:

From EN 1176-1:2017:

clause 3.6 free space; Space in, on or around the equipment that can be occupied by a user undergoing a movement forced by the equipment.

NOTE 1 Examples for this is sliding, swinging, rocking, jumping in bouncing facility for several users…

clause 4.2.16.1 Bouncing facilities, general.

For a bouncing facility the extent of the free space shall be 1 500 mm measured horizontally from any point at the perimeter and 3 500 mm above the suspension bed.

All bouncing facilities do have Free Space, however 'Small' bouncing facilities are allowed to have overlapping Free Spaces in clusters.

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Regarding Clusters:

From EN 1176-1:2017:

clause 3.20 cluster;

two or more separate pieces of equipment designed to be installed in close proximity to each other to *provide continuity in a sequence that is needed for the play activity*

NOTE An example for a cluster is a trail of stepping stones.

clause 4.2.8.3 Protection against injuries in the free space for users undergoing a movement that is forced by the equipment

Unless stated otherwise, there shall be no overlapping of adjacent free spaces, or of free space and falling space of two different pieces of equipment.

NOTE 1 This requirement does not apply to the common space between pieces of equipment in a cluster.

For information:

The current EN 1176 series definition of a cluster requires 'continuity in a sequence that is needed for the play activity'. This allows the user to focus on the cluster activities in a way that will allow them to judge the risks of transferring from one part to the next. In the case of clusters, it is also highlighted in 4.2.8.3, NOTE 1 of EN 1176-1:2017, that overlapping of Free/Falling Space is permitted.

The example shown above, with 'small' bouncing suspension beds, is a typical equipment cluster, therefore the free spaces may overlap, however the standard does not currently include any additional specific requirements for clusters. This is purposely the case, to allow for flexibility in design. In the case of bouncing facilities, as with other equipment clusters, a risk assessment should always be carried out by the supplier to confirm any risks are suitably controlled, in providing this 'continuity in a sequence that is needed for the play activity'.

We would recommend that a future work request is made by the NSB if they feel there is a strong safety case to start future work on products of the type shown, following the procedure agreed by SC1 (see template in document SC1 N9002). This is to encourage the use of the template / matrix, and to avoid duplication of work.

4.2 Scope (interpretation request 2018-02 Norway)

Clause 4.2

Question

This is regarding double tyre swing seats. These seats consist of one big car-tyre that has a smaller tyre (often called security tyre) hanging under it – see Figure 2 below.

The new standard does not include information on ground clearance for tyre seats as in the previous edition. Instead there is a description for single user seat with ground clearance 35 and group swing seat with clearance demand 40.

What seat type does the standard define, a single tyre seat or a double tyre seat as shown in Figure 2 below; single user seat or group swing seat?

In the case of double tyre seat – see Figure 2 below, is the ground clearance demand applicable only for the main top tyre or for the lower tyre as well?

NB – we often observe children standing on the lower tyre having the upper tyre supporting their body. This has the effect that the lower tyre will not easily deflect if it hits or squeezes another child under it

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against the impact attenuating surface (IAS) under the swing as many seem to argue so that they can justify that the ground clearance should only be measured from the top tyre.

Sentence 2 in the clause does not define where this measure is to be taken, and one presumes that this is where the seat is closest to the IAS. Is this correct?

Sentence 3 deviates from sentence 2 for the part of swings being flexible. Is this to be seen in conjunction with sentence 2 so that IF a part of a seat is flexible this part shall not be included for measurement of ground clearance? (This would be easier to understand and see if both sentences were included in the same sentence or paragraph.)

NB! – Here also we do see that flexible lower parts of seats, often with many children inside will not necessarily deflect or prevent a child falling off the seat in the possibility to be squeezed under the seat against the IAS.

Figure 2

<u>Reply</u>

<u>No action/interpretation</u>

This type of swing seat is not specifically covered in the EN 1176 series.

We would recommend that a future work request is made by the NSB if they feel there is a strong requirement to start future work on products of the type shown following the procedure agreed by SC1 (see template in document SC1 N9002). This is to encourage the use of the template / matrix, and to avoid duplication of work.

For information we can confirm that:

This type of seat is special as it has a top section that provides a general sitting position and also has a lower flexible part that would only provide a sitting position to very young children, who had their body positioned within the top section. Prior to publication of the EN 1176 series, swing seat ground clearances were referenced in DIN 7926-2. This publication required a ground clearance of 250 mm for seats less than 1 000 g in weight. Although this old standard is no longer valid, the information could be used as part of a risk assessment on the lower seat part.

In addition to the specific requirements of the EN 1176 series, it is always recommended that a risk assessment is carried out should unusual situations be identified.

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4.3 Clause 3.5 (interpretation request 2018-03 Norway)

EN 1176-1:2017, clause 4.2.7.2

MB Question:

This is regarding openings between 8,9 and 23 or within angles defined for v-shaped openings, all with lowest part being above 60 over standing position and all with what we see as obvious possibility for entrapment of head/neck that we cannot see described in the standard that we do think the standard should address.

Or do these cases possibly lie within the descriptions that exist in any way?

We want to draw the committee's attention to:

1) **Partially bound rigid openings that consist of parallel or close to parallel sides that are between 8,9 to 23 apart – see Figure 3 and Figure 4.**

2) **Flexible V-shaped openings with a lower edge above 60 between two flexible sides or one flexible side and one rigid side – see Figure 5.**

3) **Partially bound rigid Horizontal opening – in what we here call "arm-walk".**

See Figures 3 to 5 and texts that should explain this.

If we – for the case of further easing our argument - may be so bold as to assume that the committee agrees with our examples in that they do in fact represent obvious hazards the standard should include / address we would like the following to be clarified for each situation:

1) Is there any clause in the existing standard that covers this situation?

2) If no in question 1; if the committee agrees with our view that this is a hazard that should be abolished – how do we go about it?

3) If the committee does NOT agree with our view that this is a hazard we would very much appreciate an explanation / reason for this.

1) Opening with parallel sides - between ledge and back side of ladder. A child wanting to pass through the ladder or out the play house can get caught between the step in the ladder - the one just above the blue opposite edge - and the blue edge of the play house. The ledges being paralleled for more than 50 cm gives the child little but no possibility to escape. This is per definition NOT a completely bound opening and not a partially bound opening that deviates from D.2.2 test.

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Figure 3

Figure 4

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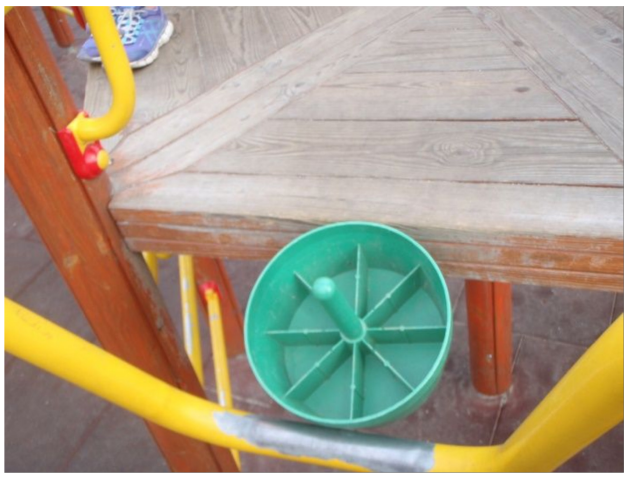
1) Opening with parallel sides / ledges - here between climbing ladder and platform. A child falling or wanting to climb down getting their head caught in the opening is not necessarily "lucky" enough to get freed from entrapment to one of the sides. We do see that this has a lower risk than a rigid closed opening and also at the same time see the possible hazard. The ledges are parallel for approximately 30 cm. This is per definition NOT a completely bound opening and not a partially bound opening that deviates from D.2.2 test.	
	
a)	**b)**

Figure 5

MB Proposal

Include these situations in the standards descriptions using the same templates that are used for other openings.

<u>PROPOSED TRACK:</u> No action

Comments/proposal for an answer:

1) With reference to EN 1176-1:2017, 4.2.7.2 a) the situations shown are not 'completely bound' and therefore do not require a test to comply with the EN 1176 series.

2) & 3) In addition to the specific requirements of the EN 1176 series, it is always recommended that a risk assessment is carried out should unusual situations, not covered by the EN 1176 series, be identified. (For example, situations that are not completely bound but where entrapment risk could occur). It is not within the terms of the interpretation panel to make judgements about risks relating to specific pieces of equipment. It can very problematic to make judgements from photographs alone.

The IP recommends that a proposal for amendment or future work is made by the NSB if they want to present a "safety case", following the procedure agreed by SC1 (see template in document SC1 N9002).

4.4 Clause 4.2.7.2 Part b and D.2.2 (interpretation request 2018-04 Norway)

MB Question

This is regarding:

1) Clarification of test method for range 2 and D.2.2; and

2) Clarification of need of template apex to contact base of the opening" in regards to angles.

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