SLOVENSKI STANDARD
oSIST prEN 16579:2013

01-junij-2013

Oprema športnih igrišč - Prenosna in nepremična nogometna vrata - Funkcionalne, varnostne zahteve in preskusne metode

Playing field equipment - Portable and fixed goals - Functional, safety requirements and test methods

Spielfeldgeräte - Ortsveränderliche und standortgebundene Tore - Funktionale, sicherheitstechnische Anforderungen und Prüfverfahren

Équipements de jeux - Buts transportables et fixes - Exigences fonctionnelles et de sécurité, méthodes d'essai

Ta slovenski standard je istoveten z: **prEN 16579**

ICS:

97.220.30	Oprema za dvoranske športe	Indoor sports equipment
97.220.40	Oprema za športe na prostem in vodne športe	Outdoor and water sports equipment

oSIST prEN 16579:2013 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 16579

April 2013

ICS 97.220.40

English Version

Playing field equipment - Portable and fixed goals - Functional, safety requirements and test methods

Équipements de jeux - Buts transportables et fixes - Exigences fonctionnelles et de sécurité, méthodes d'essai

Spielfeldgeräte - Ortsveränderliche und standortgebundene Tore - Funktionale, sicherheitstechnische Anforderungen und Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 136.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword

This document (prEN 16579:2013) 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 document is currently submitted to the CEN Enquiry.

1 Scope

This European Standard specifies the functional and safety requirements and test methods for all types of portable and permanent fixed playing field goals which includes - but not exclusively goals for sports such as football, rugby, hurling, gaelic football, handball, futsal and hockey. This European Standard is not applicable to goals according to EN 748 (football), EN 749 (handball), EN 750 (hockey), EN 1270 (basketball) and EN 15312 (free access multi-sports) and EN 13451-4 (water polo).

This standard is not applicable to

— goals according to WI 00136312;

— inflatable goals;

— goals which are classified as toys under the responsibility of CEN/TC 52.

It is applicable to playing field goals used for competition, training or recreational play, indoor and outdoor areas including educational establishments and public recreational areas.

This standard does not apply for portable and permanent fixed playing field goals for American football.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 1806, *Fishing nets - Determination of mesh breaking force of netting (ISO 1806)*

3 Terms and definitions

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

3.1
goal
uprights, crossbar, together with any other parts such as the net, net support posts, boards, sockets and anchoring systems

3.2
portable goal
goal structure which may or may not be temporarily located by light ground sockets but which, when erected or assembled is stabilised by means of a specific ground anchorage system which enables the structure to withstand the required design and test loads

Note 1 to entry: Portable goals can be referred to as free standing goals

3.3
fixed goal
goal structure which is set in a suitably -sized permanent foundation in such a way as to enable the combined structure to withstand the required design and test loads

3.4
goal frame
crossbar and uprights which form the goal mouth crossbar and uprights

3.5
net support
attachment which may be fixed to the goal frame for supporting the net, but which does not support the goal frame

3.6
frame support
framework comprising the side bars and back bars that may support the goal frame

3.7
anchoring system
system for ensuring that a portable goal cannot tip over, slide or displace

3.8
in use
that period commencing with the erection of the goals on the field of play and their subsequent use for training or play, in accordance with the rules of the game for that particular code of sport

3.9
intended use
purpose for which the goal has been designed

3.10
not in use
commencement of the dismantling of goals and the subsequent period when they are not available for their intended use

4 Specifications

4.1 General

A goal should be purchased as a complete unit (e. g. goal, net, anchors, stabilisers, etc.) together with any other accessories that may be required.

4.2 Categorisation

The categories are shown in Figures 1 and 2 and Tables 1 and 2.

a) Category A **b) Category B**

Figure 1 — Goal categories

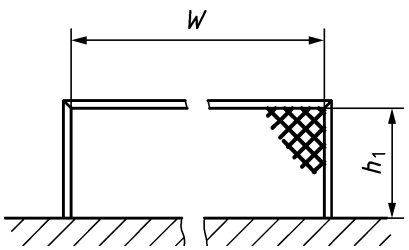
Table 1 — Goal sizes – Category A (internal height to crossbar)

Category	Size ranges		
	Width w (internal) m	Height to crossbar h_1 (internal) m	Overall height of uprights h_2 m
A1	$0,70 \leq w < 1,80$	$0,50 \leq h_1 < 1,20$	—
A2	$1,80 \leq w < 4,88$	$1,20 \leq h_1 < 1,90$	—
A3	$1,80 \leq w < 4,88$	$1,90 \leq h_1 < 1,99$	—
A4	$3,00 \leq w < 5,00$	$2,00 \leq h_1 < 2,44$	—

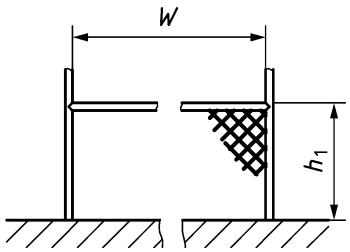
Table 2 — Goal sizes Category B (height to crossbar / height to top of the crossbar)

Category	Size ranges		
	Width w (internal) m	Height to crossbar h_1 (Gaelic) (to top of the crossbar (Rugby) m	Overall height of uprights h_2 m
B1	$2,50 \leq w < 3,00$	$1,50 \leq h_1 < 1,85$	4,50 ± 0,05
B2	$3,00 \leq w < 4,60$	$1,85 \leq h_1 < 2,20$	4,50 ± 0,05
B3	$4,60 \leq w < 6,50$	$2,20 \leq h_1 < 2,50$	8,50 ± 0,05
B4	4,60 ± 0,05	$2,20 \leq h_1 < 2,50$	$6,00 \leq h_2 \leq 10,00$
B5	6,5 ± 0,05	2,5 ± 0,05	11,00 ± 0,05
B6	$5,60 \leq w < 6,50$	$2,50 \leq h_1 < 3,00$	$3,40 \leq h_2 \leq 16,00$[a]

[a] The laws of the game of Rugby Union do not specify any maximum value (see [1]). The maximum value is given as guidance.



a) Category A



b) Category B

Figure 2 — Dimensions of goal frame

4.3 Materials

Materials shall be selected and protected such that the structural integrity of the goal shall not be affected before the next relevant maintenance inspection.

NOTE 1 The provisions relating to certain materials in this European Standard do not imply that other equivalent materials are unsuitable in the manufacture of goals.

The selection of materials and their use should be in accordance with the appropriate European Standards where applicable.

Particular care should be taken in the choice of materials where a goal is to be used in extreme climatic or atmospheric conditions.

Where very low or very high temperatures can be anticipated care should be taken with material selection to avoid possible hazards through direct skin contact.

!In the choice of a material or substance for a goal, consideration should be given to the eventual disposal of the material or substance having regard to any possible environmental toxic hazard.

NOTE 2 Information on the identification and classification of such substances can be found in the Directive 67/548/EEC (classification, packaging and labelling of dangerous substances) [2] as well as in the Regulation (EC) no.1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) [3]."

5 Requirements

5.1 Strength

When tested in accordance with 6.2, goal frame shall not collapse nor show:

a) visible signs of cracks/fractures and/or

b) a measured deflection (or deformation) "*d*" (see Formula (1)) of the crossbar of > 10 mm.

5.2 Stability

When tested in accordance with 6.3, a goal frame shall not fall over nor slide.

5.3 Entrapment

5.3.1 General

Goals shall be designed and constructed so that there are shall be no crushing or shearing hazards between moving parts and/or fixed parts and risk of entrapment when assessed in accordance with the procedure given in Annex A.

5.3.2 Moving parts

Where opening sizes change during use due to movement, the permissible opening sizes stated in 5.3.3 shall apply.

5.3.3 Protection against entrapment

5.3.3.1 Entrapment of the head and neck

5.3.3.1.1 General

Equipment shall be constructed so that any openings do not create head and neck entrapment hazards either by head first or feet first passage. Hazardous situations in which this type of entrapment can be encountered include the following:

a) completely bound openings through which a user may slide feet first or head first,

b) partially bound or V-shaped openings and

c) other openings (e.g. shearing or moving openings).

5.3.3.1.2 Completely bound openings

Accessible completely bound openings with a lower edge more than 600 mm above ground shall be tested in accordance with A.3.1.

Small probes n°1 and n°2 shall not pass through any opening unless it also allows the passage of large probe n°3.

Non-rigid parts (e.g. ropes) shall not overlap if this creates apertures that are not in accordance with the above.

5.3.3.1.3 Partially bound and V-shaped openings

Partially bound and V-shaped openings with an entrance at 600 mm or more above the ground shall be constructed so that either:

a) the opening is not accessible when tested in accordance with A.3.2, or

b) if accessible at a position of 600 mm or more above ground when tested in accordance with A.3.2,

depending on the angular orientation range of the opening (see Figure A.6, a)), shall comply with the following:

— Range 1: (template centre line ± 45° from vertical); the template apex contacts the base of the opening and the depth of the opening is less than the length of the template to the underside of the shoulder section.

— Range 2: (template centre line from horizontal to + 45°); when the template apex contacts the base of the opening, the depth of the opening shall be less than the ‘A’ portion of the template. If the depth of the opening is greater than the ‘A’ portion of the template all parts of the opening above the ‘A’ portion shall also allow insertion of the shoulder section of the template or probe n°3.

— Range 3: no template test requirements.

5.3.3.2 Entrapment of finger

Equipment should be constructed so that the following hazardous situations, which might cause entrapment are not created:

a) gaps in which fingers can be trapped whilst the remainder of the body is moving or continues in forced movement,

b) open-ended tubes or pipes, and

c) variable gaps (excluding chains).

Openings and holes which have a lower edge more than 1 000 mm above the playing surface, when tested in accordance with A.2, shall conform to the following requirements:

d) the 8 mm finger rod (see Figure A.1) shall not pass through the minimum cross-section of the opening and the profile of the opening shall be such that the rod cannot be locked in any position when set in motion as given in A.2.2, or

e) if the 8 mm finger rod passes through the opening, the 25 mm finger rod (see Figure A.1) shall also pass through the opening, provided that the opening does not permit access to another finger entrapment site.

The ends of tubes and pipes shall be closed off to prevent the risk of finger entrapment.

The closures shall not be removable without using tools.

Gaps whose dimensions change during use of the equipment shall have a minimum dimension in any position of 18 mm.

5.4 Net fixings

The net shall be attached firmly to the frame of the goal with net fixings designed in such a way that a player cannot be injured. When tested according to 6.4 no visible crack and/or permanent deformation shall occur at the net fixings and the net fixing shall not dislodge.

Any opening in the net fixing outside the profile of the goal frame shall not result in entrapment when tested in accordance with Annex A.

The fixings of the net shall be of non-corrodible material, neither spring hooks nor metal cup hooks shall be used as a means of fixing the net to the goal frame.

The spacing between net fixings shall not allow a ball for which the goal is intended to be used to pass and shall not create any head entrapment when tested in accordance with Annex A.

NOTE In practice, the method used to attach the net should also allow it to be removed reasonably easily and quickly.

5.5 Net

Net yarn shall have a minimum diameter of 2 mm to reduce the risk of cutting

Net dimensions shall comply with the requirements of goal frame dimensions and the associated goal frame net supports.

Mesh sizes shall be

— ≤ 50 mm for Gaelic Football and Hurling;

— ≤ 120 mm for Football;

— ≤ 45 mm for Hockey.

The mesh size shall not allow a ball for which the goal is intended to be used to pass through nor create any head and neck entrapment as assessed by the method specified in Annex A, but shall also comply with the requirements in 5.3.

The net shall meet at least the requirement for mesh breaking strength of net quality class C (see Table 3).

Table 3 — Mesh breaking strength

Net quality class	N min.	Test method
A	1 800 (1 500)[a]	EN ISO 1806
B	1 080 (900)[a]	
C	792 (660)[a]	

[a] This corresponds to the breaking strength of the net yarn, tested in accordance with EN ISO 2062.

5.6 Finish of equipment

The surface finish of equipment (e. g. glass fibre) shall be non-splintering.

Rough surfaces should not present any risk of injury.

There shall be no protruding nails, projecting wire, rope terminations or pointed or hard and sharp-edged parts within any accessible part of the equipment. Corners, edges and projecting parts within any accessible part of the equipment that project more than 8 mm, and which are not shielded by adjacent areas that are not more than 25 mm from the end of the projecting part, shall be rounded off. The minimum radius of the curve shall be 3 mm.

Protruding bolt threads within any accessible part of the equipment shall be permanently covered, e.g. dome-headed nuts. Nuts and bolt heads that project less than 8 mm shall be free from burrs. All welds shall be ground smooth.

NOTE Figure 3 shows examples of protection for nuts and bolts.