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SIST EN 1509:2005

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 1509**

September 2004

ICS 97.220.30

Supersedes EN 1509:1996

English version

**Playing field equipment - Badminton equipment - Functional and  
safety requirements, test methods**

Equipements de jeux - Equipements de badminton -  
Exigences fonctionnelles et de sécurité, méthodes d'essai

Spielfeldgeräte - Badmintoneinrichtungen - Funktionelle  
und sicherheitstechnische Anforderungen, Prüfverfahren

This European Standard was approved by CEN on 22 July 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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## Foreword

This document (EN 1509:2004) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational 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of an identical text or by endorsement, at the latest by March 2005, and conflicting national standards shall be withdrawn at the latest by March 2005.

This document supersedes EN 1509:1996.

Other types and sizes as those described in this standard are permissible provided the safety requirements of this standard are taken into consideration.

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

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**EN 1509:2004 (E)****1 Scope**

This document specifies the functional requirements (see clause 3) and the safety requirements (see clause 4) for badminton equipment, excluding rackets and shuttlecocks.

This document is applicable to 3 types of badminton equipment (see 3.1) which are used indoors.

**2 Normative references**

The following referenced documents are indispensable for the application 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 913:1996, *Gymnastic equipment — General safety requirements and test methods*.

EN 22768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1:1989)*.

EN ISO 1806, *Fishing nets — Determination of mesh breaking force of netting (ISO 1806:2002)*.

**3 Requirements****3.1 Classification**

Badminton equipment shall be classified by the design (types) as shown in table 1.

**Table 1 — Types**

Type	Description	Example
1	with ground sockets	figure A.1
2	with bases and ground fixings	figure A.2
3	freestanding	figure A.3

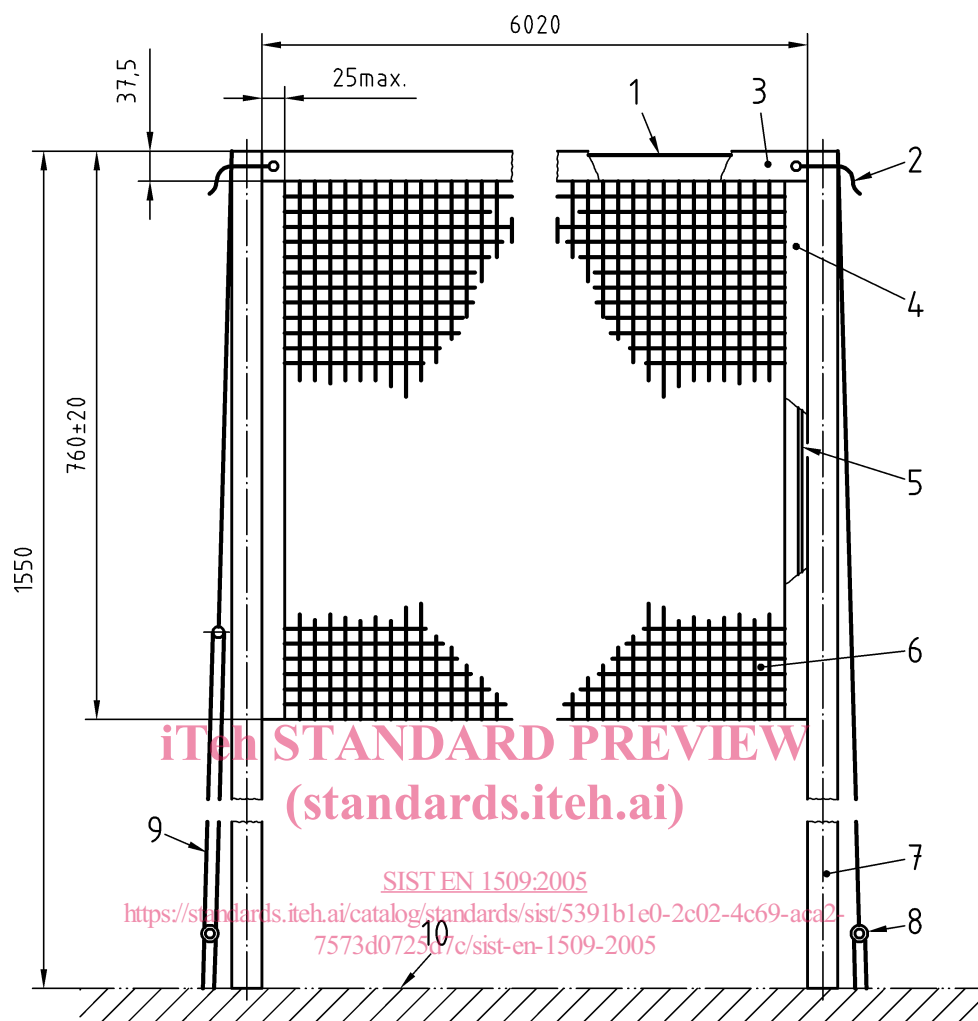
**3.2 Dimensions**

Badminton equipment shall comply with the dimensions shown in figure 1.

General tolerances:

EN 22768-1 applies.

Dimensions in millimetres

**Key**

- |                   |                                  |
|-------------------|----------------------------------|
| 1 Top net line    | 6 Net                            |
| 2 Tensioning cord | 7 Post                           |
| 3 Top tape        | 8 Top net line eye               |
| 4 Side net tape   | 9 Top net line tensioning device |
| 5 Stabilizing bar | 10 Sport surface                 |

**Figure 1 — Badminton equipment**

Example of a top of a post to guide the top net line see annex A:

Example of foundation see annex B.

A complete badminton equipment **type 1** shall have the following components:

- a) 2 posts;
- b) 2 ground sockets;
- c) 1 net.

NOTE A badminton equipment can also include a tensioning device.

For an example of badminton equipment type 1 see annex A.

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A complete badminton equipment **type 2** shall have the following components:

- a) 2 posts with bases and ground fixings;
- b) 1 net.

NOTE A badminton equipment can also include a tensioning device.

For an example of a badminton equipment type 2 see annex A.

A complete badminton equipment **type 3** shall have the following components:

- a) 2 posts with the weighted bases;
- b) 1 net.

NOTE A badminton equipment can also include a tensioning device.

For an example of a badminton equipment type 3 see annex A.

### 3.3 Material

#### 3.3.1 Posts, bottom structure of type 3 and ground fixings

These may be made of steel, light metal or synthetics, provided the requirements of this standard are fulfilled.

Light metal shall be non-corrosive and steel protected against corrosion (e. g. hot-galvanized, powder coated or painted).

#### 3.3.2 Net

The net shall be made from synthetic fibres.

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#### 3.3.3 Top net line

The top net line shall be made from synthetic cord.

### 3.4 Design

#### 3.4.1 Posts

The construction of the posts shall be such that the top net line can be supported or guided at a height of 1 550 mm above the side lines for doubles and minimum 1 524 mm at the centre of the court. The posts shall be provided with appropriate fixings for the net.

The posts shall not move and remain vertical and keep the net in a position to meet the requirements of the rules for badminton.

#### 3.4.2 Net

The height of the net shall be 760 mm.

The mesh shall be not less than 15 mm and not more than 20 mm.

The mesh breaking strength of the net shall be at least 140 N.

The top tape, when doubled, shall have a face of 37,5 mm and shall be white. When the net is installed for play it shall fill the space between the posts for its entire height.

The top net line shall be inserted into the top tape. The ends of the top net line shall be designed so that they do not fray and so that they fit the appropriate tensioning and/or fixing devices.

#### 3.4.3 Ground sockets

All ground sockets shall be resistant to corrosion.



## 4 Safety requirements

### 4.1 General

General safety requirements shall comply with 5.1 of EN 913:1996.

### 4.2 Tensioning devices

The tensioning devices (if any) shall be designed in such a way that they cannot start without control.

They shall not be directed toward the court and they shall be designed so as to induce no risk to the players.

### 4.3 Other fixings

Other fixings (if any) shall not be directed towards the court and they shall be designed so as to induce no risk to the players.

## 5 Test methods

Requirements of clause 3 for which no particular tests are indicated in the following shall be appropriately verified, e. g. by measurement, visual inspection, tactile or functional testing.

Testing of the breaking forces of net yarn is done according to EN ISO 1806.

Testing of safety requirements is done according to EN 913.

Testing of the tensioning devices and other fixings shall be made by visual inspection.

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## 6 Instructions for use

Each badminton equipment shall be accompanied by instructions for use including at least the following:

- a) installation details;
- b) assembly covering method of adjustment and tensioning device;
- c) correct fastening of the net;
- d) maintenance details.

## 7 Marking

Badminton equipment complying with this document shall be marked with the following information:

- a) the number of this document EN 1509<sup>1)</sup>;
- b) the name, trademark or other means of identification of manufacturer, retailer or importer and the year of manufacture.

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1) Marking EN 1509 on or in relation to a product represents a manufacturer's declaration of conformity, i. e. a claim by or on behalf of the manufacturer that the product meets the requirements of the standard. The accuracy of the claim is therefore solely the responsibility of the person making the claim. Such a declaration should not be confused with third party certification of conformity, which can also be desirable.