



**SLOVENSKI STANDARD**  
**SIST EN 15649-3:2010**  
**01-februar-2010**

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Floating leisure articles for use on and in the water - Part 3: Additional specific safety requirements and test methods for Class A devices

Schwimmende Freizeitartikel zum Gebrauch auf und im Wasser - Teil 3: Zusätzliche spezifische sicherheitstechnische Anforderungen und Prüfverfahren für Klasse A-Geräte  
(standards.iteh.ai)

Articles de loisirs flottants a utiliser sur ou dans l'eau - Partie 3: Exigences de sécurité et méthodes d'essai complémentaires propres aux dispositifs de Classe A

**Ta slovenski standard je istoveten z: EN 15649-3:2009**

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**ICS:**

97.220.40	Oprema za športe na prostem in vodne športe	Outdoor and water sports equipment
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 15649-3**

November 2009

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English Version

## Floating leisure articles for use on and in the water - Part 3: Additional specific safety requirements and test methods for Class A devices

Articles de loisirs flottants à utiliser sur ou dans l'eau -  
Partie 3 : Exigences de sécurité et méthodes d'essai  
complémentaires propres aux dispositifs de Classe A

Schwimmende Freizeitartikel zum Gebrauch auf und im  
Wasser - Teil 3: Zusätzliche besondere  
sicherheitstechnische Anforderungen und Prüfverfahren für  
Artikel der Klasse A

This European Standard was approved by CEN on 11 September 2009.

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 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 Management Centre has the same status as the official versions.

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



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## Foreword

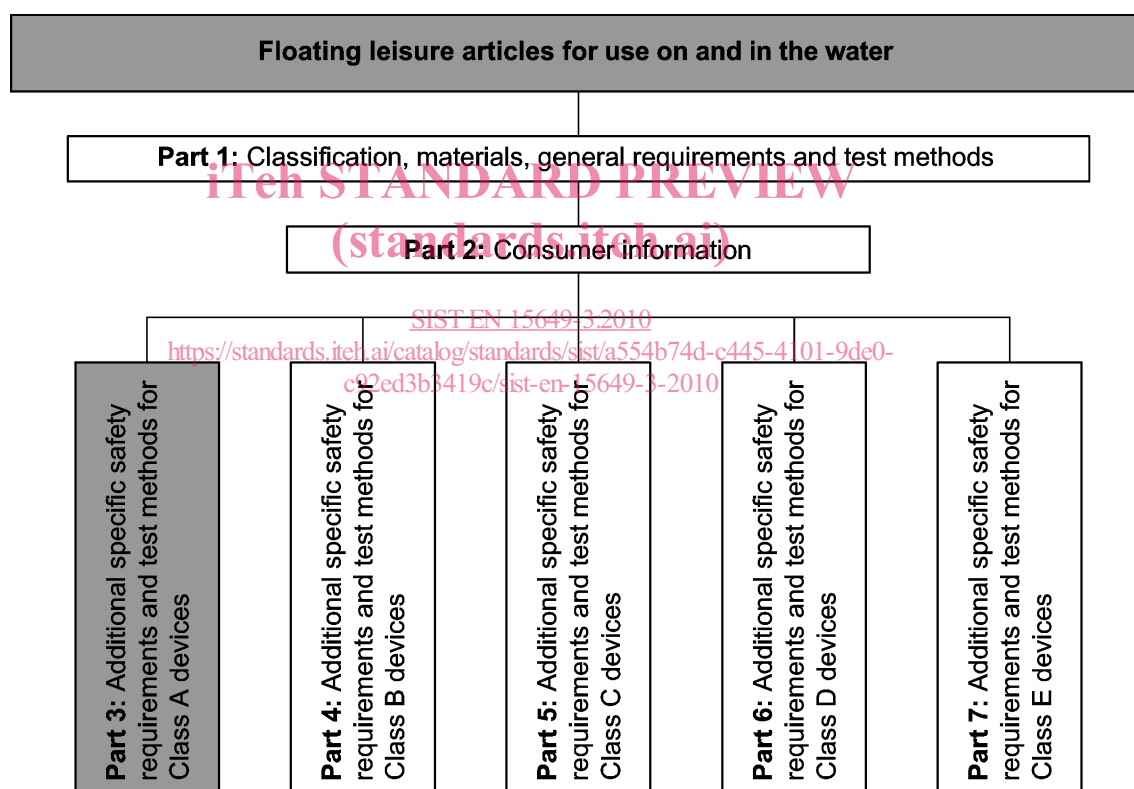
This document (EN 15649-3:2009) has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational facilities and equipment", the secretariat of which is held by DIN.

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 May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This European Standard is one of a series consisting of seven standards dealing with floating leisure articles for use on and in the water.



Compliance of a product to this standard requires that the requirements of the relevant specific part and additionally, the requirements of EN 15649-1 and EN 15649-2 shall be met. If a product includes multiple use related to several classes it has to meet the requirements of all these classes.

Annex A is informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania,

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Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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## Introduction

## Interior Structure Class A

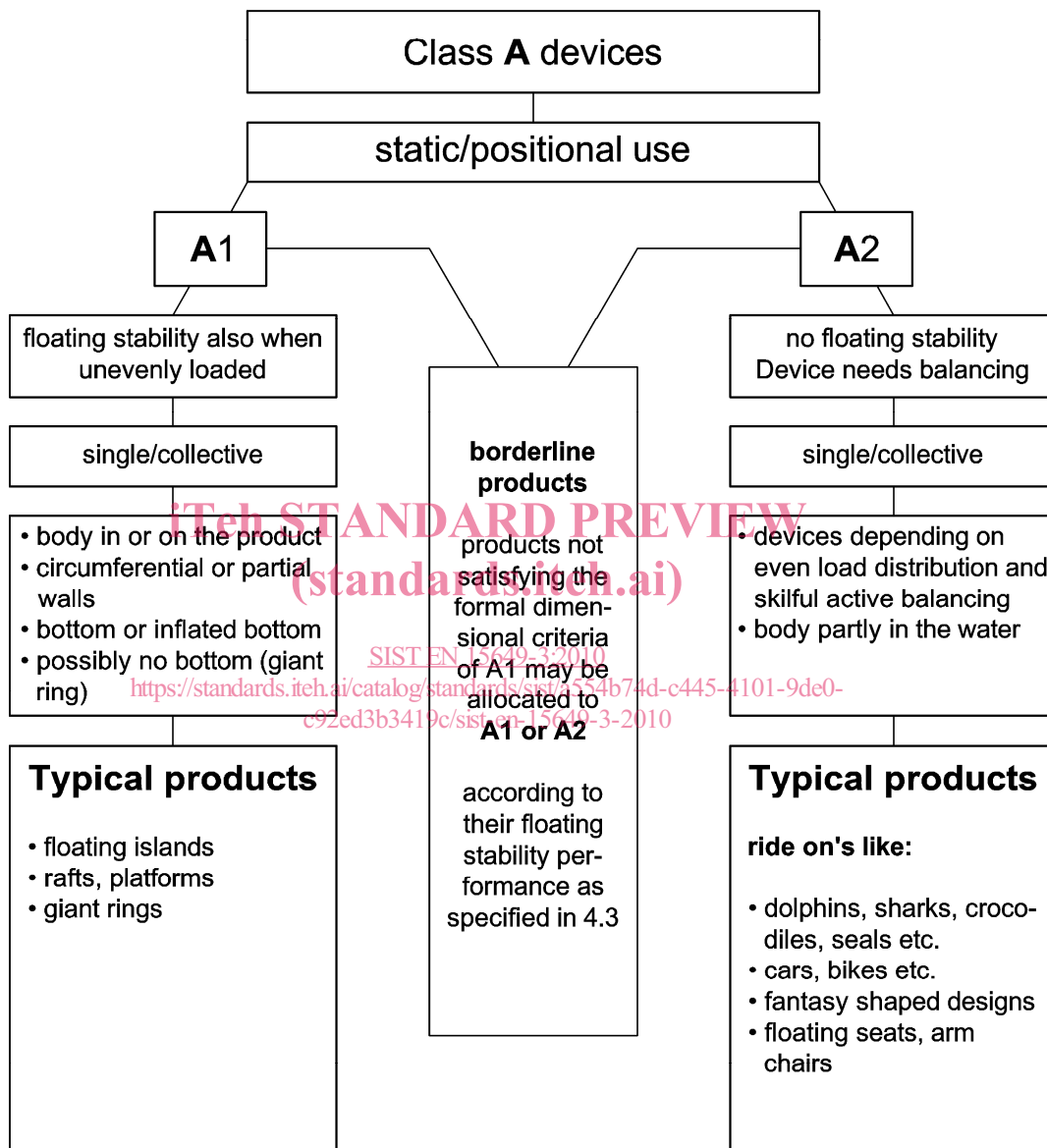


Table 1 — Introductory risk analysis

Class	Typical products	Place of usage	Function; range of usage; target / age group	Type of movement / propulsion	Position of user regarding equipment and elevation above water	Predictable misuse	Partial risk related to water environment	Final risk	1.1 Protection aims; 1.2 Related standard / regulation
A1	floating fantasy shaped inflatable islands; recreational raft; animal shaped raft; platform/ pontoon, etc.	sea shore, close to shore; lakes; smoothly running rivers; public / private pools; ponds	relaxing, resting on the water; sunbathing; basis for bathing and swimming / playing; device providing high level of floating stability; single and collective use; all age groups, swimmers	static use within limited area; little action; movement by pushing through swimming strokes only; no mechanical means of propulsion	on or in (side walls) the device, laying, sitting, no direct body fit; grab handles might exist but resting does not depend on gripping / balancing; no dangerous height of fall	dangerous distance from the bank / shore; use in currents and/or dangerous offshore winds; use by non-swimmers; fall over board; no diving platform!	unnoticed drifting to open waters; falling asleep and consequently extreme sunburn, etc.; capsizing; skin irritation due to long duration of skin contact / dangerous substances in contact with skin; climbing back?; hypothermia; cold shock	D R O	floating stability; minimum buoyancy; residual buoyancy; space, safety handles/ lines; anchorage; warning notes, labelling, swimmers only, age restriction according to EN ISO 6185-1, EN ISO 6185-2 and EN ISO 6185-3
A2	large, animal shaped and otherwise designed buoyant structures: "Ride on", etc.	sea shore / close to shore, lakes, public / private pools; ponds	action, playing in the water; balancing children; collective and single use; all age groups, swimmers	drifting; propulsion only by swimming strokes or third party	on the device; loose fit via handles; no dangerous height	use by non-swimmers; use in current, canal, lack of supervision	drifting away in open waters due to wind and/or current; devices provokes use in deep; used by non-swimmers; falling into deep water	W N I	labelling, residual buoyancy, grab handles, supervision; warnings
1/2	air mattress for use in water; floatable pool loungers; floating seating structures; giant rings / tubes	sea shore close to the shore; lakes, public / private pools; ponds sea	resting on the water; observation of under water environment; play; mainly single use; floating stability depends on design; all age groups, swimmers	normally no mechanical means of propulsion but possible; drifting or propulsion by swimming strokes; seats might be equipped with pedals (wheel propulsion)	On/in the device; device is clung on; device is held; mainly a near horizontal posture sitting; no relevant elevation above water level	see above	see above	N G	See A1/A2 no rule is known to provide technical substance



## 1 Scope

This European Standard is applicable for CLASS A classified floating leisure articles for use on and in water according to EN 15649-1 regardless whether the buoyancy is achieved by inflation or inherent buoyant material.

This document (EN 15649-3) is applicable with EN 15649-1 and EN 15649-2.

NOTE 1 Typical products forming Class A:

- "Floating Islands" in near round or square shaped forms decorated with palm tree, sun shade, etc. high superstructure;
- large floats/rafts in various forms from round to square;
- large floating tubes, giant tubes (inflatable or inherently buoyant);
- floating arm chairs, seats and sun beds;
- air mattresses for use on the water;
- large animal shaped inflatable or inherent buoyant devices, buoyant structures with animal like decorations, imitations;
- recreational rafts / floating platforms / pontoons.

NOTE 2 Typical places for application:

- pools;
- protected areas of lakes, ponds;
- protected area sea shore (no offshore winds, no currents).

## 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 15649-1:2009, *Floating leisure articles for use on and in the water — Part 1: Classification, materials, general requirements and test methods*

EN 15649-2, *Floating leisure articles for use on and in the water — Part 2: Consumer information*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15649-1:2009 and the following apply.

### 3.1

#### **residual buoyancy**

provision of remaining buoyancy in case of a defect of any buoyancy chamber

**EN 15649-3:2009 (E)****3.2<sup>1</sup>****device providing static floating stability**

product so designed that the user needs not to care about floating stability by his own skills

NOTE One or several users may be safely on or in the device even if the weight is not evenly distributed.

**3.3<sup>1</sup>****device to be balanced by the user**

upright floating of device depends on user's skill and sense to balance it

**3.4****escape**

easy and complete separation between the user and the device in case of capsizing of the device or system without hindrance through any part or feature of the floating device

**3.5****available area**

area on or inside a floating article which can be used unrestrictedly for user accommodation when taking the intended posture(s)

**3.6****multiple use product**

any product intended to be used for more than one purpose (jumping, resting, climbing, etc.)

**3.7****inherent buoyant material**

non-crosslinked (closed-cell) foam or other materials enclosed in (a) sealed compartment(s) in the hull which have a specific weight less than fresh water

NOTE Inflatables made from inherent buoyant material are considered a buoyant structure (hull) achieving all or parts of its intended shape and buoyancy resulting from soft foam, hard foam or sealed chambers filled with air, gas or granules.

**4 Safety requirements and test methods****4.1 General**

Construction of a floating leisure article shall be such that it corresponds in terms of design, dimensions, safety, strength and durability for its intended use. The requirements set out in this standard were chosen to ensure compliance with these considerations. If inflatable floating leisure articles shall provide buoyancy in several components then requirements apply to all components. Floating leisure articles shall provide residual buoyancy if one air chamber fails. This residual buoyancy shall maintain the safety of the device even if its function is lost. The following safety requirements are therefore related to:

- design;
- sizing;
- materials;
- strength;
- performance;

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1 In accordance with intended use.

— information.

In individual cases, due to the unpredictability, valency and indeterminability of existing and future concrete products, a corresponding choice shall be made by the test house.

## 4.2 Design, sizing, admissible number of users and maximum load capacity

### 4.2.1 General

Devices shall be marked according to their size and / or number of permitted users and maximum load capacity.

### 4.2.2 Sizing

#### 4.2.2.1 Requirements

If a specific size/body weight correlation between user and device is relevant, the marking shall be in accordance with the range of body weights. The size/body weights of the user shall be indicated on the product by completing the relevant boxes of the appropriate safety information symbol "User's body weight range" as specified in EN 15649-2.

#### 4.2.2.2 Test method

Check for correct marking and completion.

### 4.2.3 A1-products, space per person and admissible number of users

#### 4.2.3.1 Requirements

A1-products shall be labelled with regard to the intended posture – lying/sitting – of the user(s) and the maximum permissible number of users. The minimum space for a user in lying posture shall correspond to a flexible template (adult/child) the dimensions of which are specified in EN 15649-1:2009, A.1.1. The minimum space for a sitting user shall correspond to the template (adult/child) as specified in EN 15649-1:2009, A.1.2. In cases of combined use (sitting and lying), the template for a lying person shall be applied to determine the available area.

Templates may exceed the outer circumference of the device to a total amount of 30 %. This amount is divided in 15 % of template length for the head area and 15 % of template length for the leg area (see shaded area of templates in EN 15649-1:2009, Annex A). The angle between centre line of the template and tangential of a possible back rest, board wall, etc. shall be greater than 60° (see Figure 1).

The total amount of users determined by the templates shall not contradict to the load capacity and floating stability of the device.

Space requirement using templates is not applicable for ride-on devices where distinct upright seats and/or seating positions are imposed by the device.

#### 4.2.3.2 Test method

Testing shall be done by applying the relevant templates as specified in EN 15649-1:2009, A.1 and shown in Figure 1. Templates shall be stretched out over the area available to the user without overlapping. Templates may be arrayed to optimise the amount of users and the mix of adults and children without contradicting to the load capacity of the device. Blank areas of templates shall be completely inside the outer circumference. Check by visual inspection for appropriate labelling in accordance with safety information symbols "Number of users, adult/children" and/or "Maximum load capacity" as specified in EN 15649-2.