

SLOVENSKI STANDARD

SIST EN 15649-5:2010

01-februar-2010

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Floating leisure articles for use on and in the water - Part 5: Additional specific safety requirements and test methods for Class C devices

Schwimmende Freizeitartikel zum Gebrauch auf und im Wasser - Teil 5: Zusätzliche spezifische sicherheitstechnische Anforderungen und Prüfverfahren für Klasse C-Geräte
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Articles de loisirs flottants à utiliser sur ou dans l'eau - Partie 5: Exigences de sécurité et méthodes d'essai complémentaires propres aux dispositifs de classe C

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Ta slovenski standard je istoveten z: EN 15649-5:2009

ICS:

97.220.40	Oprema za športe na prostem in vodne športe	Outdoor and water sports equipment
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en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 15649-5

November 2009

ICS 97.200.50

English Version

**Floating leisure articles for use on and in the water - Part 5:
Additional specific safety requirements and test methods for
Class C devices**

Articles de loisirs flottants à utiliser sur ou dans l'eau -
Partie 5 : Exigences de sécurité et méthodes d'essai
complémentaires propres aux dispositifs de Classe C

Schwimmende Freizeitartikel zum Gebrauch auf und im
Wasser - Teil 5: Zusätzliche besondere
sicherheitstechnische Anforderungen und Prüfverfahren für
Artikel der Klasse C

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.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

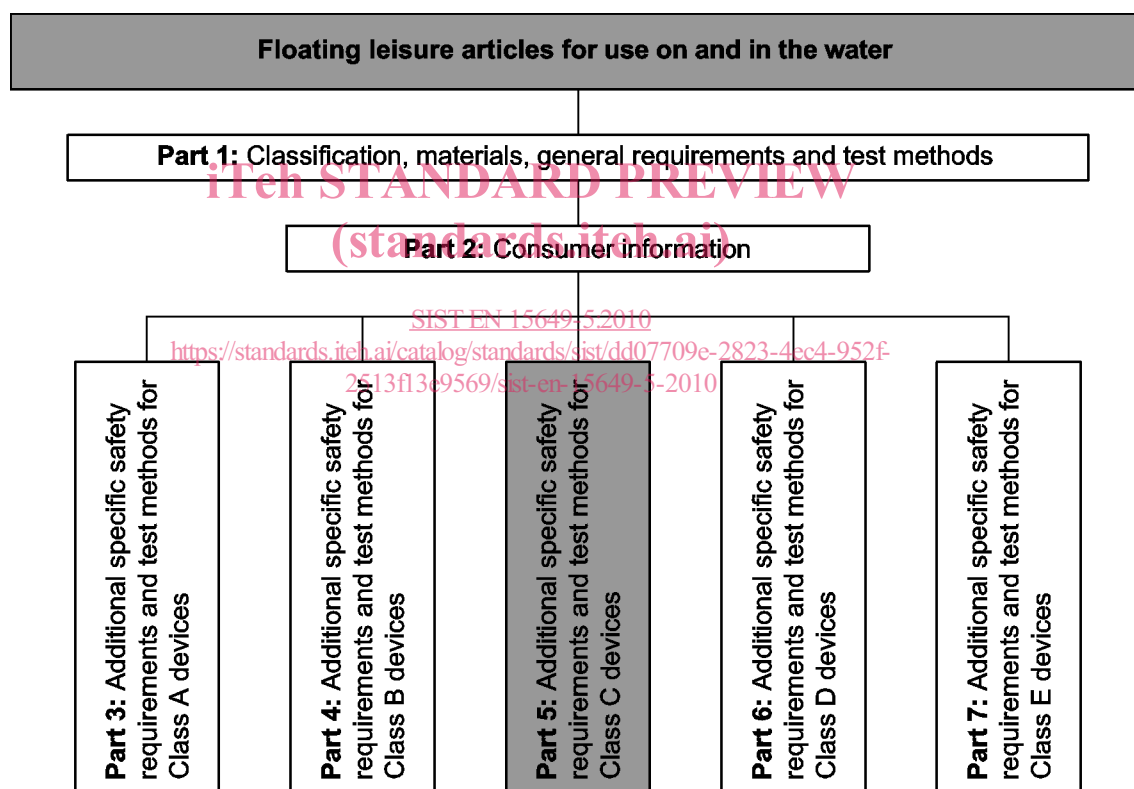
This document (EN 15649-5:2009) has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational facilities and equipment", the secretariat of which is held by DIN.

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.



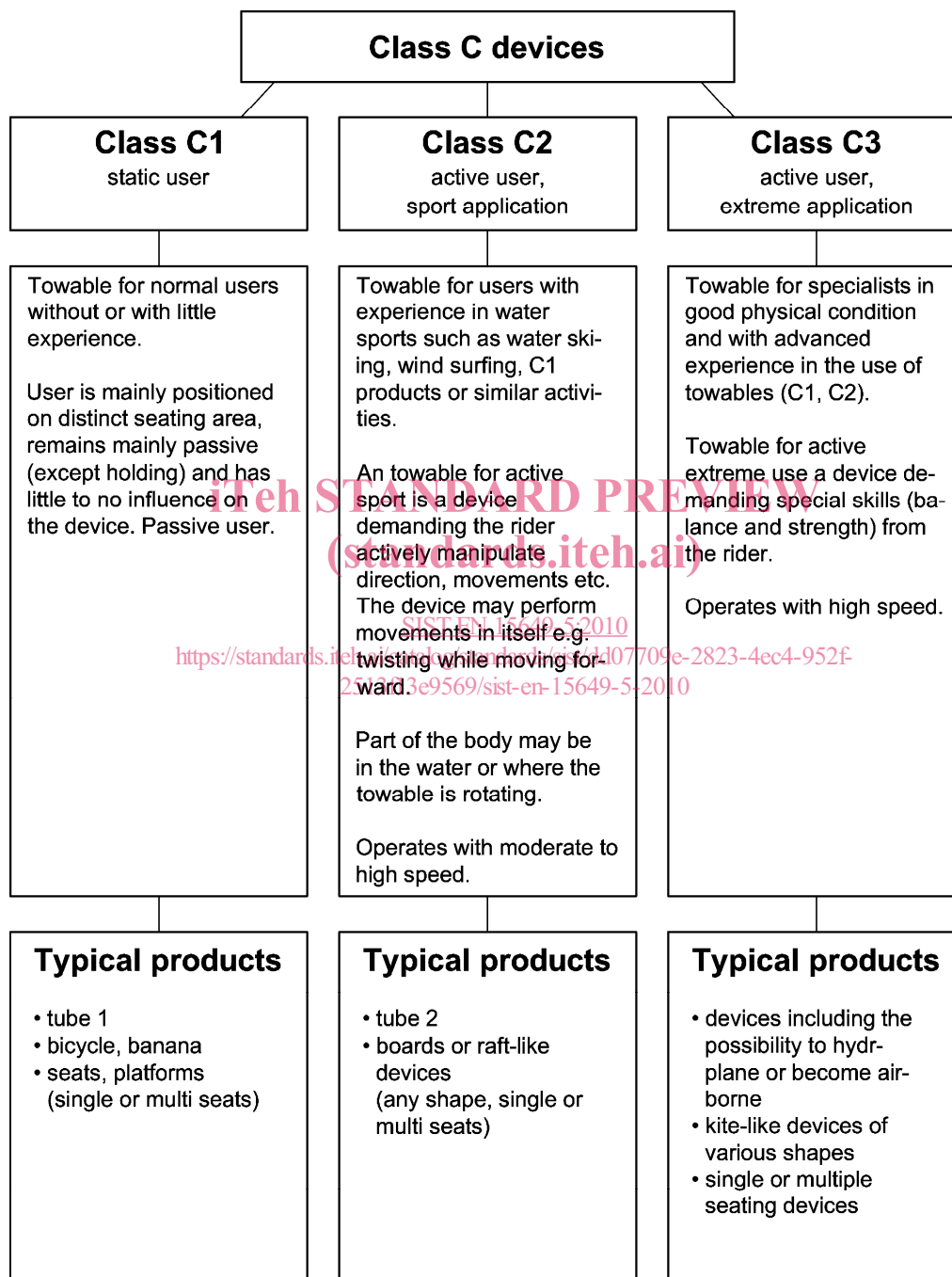
Compliance of a product to this standard requires that the requirements of the relevant specific part and, additionally, the requirements of EN 15649-1 and EN 15649-2 have to be met. If a product includes multiple use related to several classes, it has to meet the requirements of all these classes.

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

Introduction

Interior Structure Class C



Typical places of application:

- distant from bathing areas and other frequented water surfaces, wide empty spaces, dedicated racetracks (water courses);
- no to very small waves;
- no strong currents.

NOTE National regulations may not allow the use of these types of products in specific places.

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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 in regard to the equipment, elevation above water	Predictable misuse	Partial risk related to water environment	Final risk	Protection aims standard / regulation
C	tube riders with interior holding facility and closed cockpit; raft riders; board riders; banana riders (all to be towed by motor boats)	sea shore / close to shore; lakes, rivers; large space for action is needed	adolescents; adults; children accompanied by adults (minimum age group) https://standards.iteh.ai/catalog/standards/sist/15649-5-2010	high speed movement; devices towed by motor boats; other means of propulsion	users are sitting on or inside the device; elevation from water level about maximum 60 cm sitting height; kneeling, lying; standing	use by non-swimmers; no use of PFD; excessive speed; improper load distribution/seating position; close vicinity to other users; overload; inadmissible number of passengers	collision of persons in the case of capsizing; fall from the device; device turning; catapulting out of the device; impact through device; nose dipping; sudden stop; crash down of kite type towables; rupture of the towing rope; entrapment/entanglement; nose dive; use of rumps	D R O W N I N G	age limits; warning notes; quick release; gripping; escape in case of danger; residual buoyancy; use of PFD; length, strength and elasticity of rope; reliability of quick release, user qualifications and capabilities

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1 Scope

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

This document (EN 15649-5) is applicable with EN 15649-1 and EN 15649-2.

NOTE 1 Typical products forming class C:

- tube riders towable with interior holding facility and closed cockpit;
- raft riders towable;
- board riders towable;
- banana type towable.

NOTE 2 Typical places for application:

- distant from bathing areas and other frequented water surfaces, wide empty spaces, dedicated racetracks (parcours);
- no to little waves;
- no strong currents.

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2 Normative references

SIST EN 15649-5:2010

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 or in the water — Part 2: Consumer information*

EN ISO 6185-1:2001, *Inflatable boats — Part 1: Boats with a maximum motor power rating of 4,5 kW (ISO 6185-1:2001)*

EN ISO 12402-1:2005, *Personal flotation devices — Part 1: Lifejackets for seagoing ships — Safety requirements (ISO 12402-1:2005)*

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 15649-5:2009 (E)**3.2****personal floating device****PFD**

garment or device that, when correctly worn and used in water, will provide the user with a specific amount of buoyancy that will increase the likelihood of survival

[EN ISO 12402-1:2005, 3.1]

3.3¹**application at high speed**

application in which the floating device is towed rapidly through external means of propulsion (motor boat, towing installation, etc.)

3.4**means to assist re-embarkation**

means which helps the user to climb back on board of the floatable device from an in-water position regardless whether the buoyant structure is fully inflated or any air chamber is deflated

3.5**towable**

floating leisure article (inflatable or inherently buoyant) for dynamic use towed by mechanical means

3.6**rider**

<floating leisure articles>

user of the towable positioned on the towed device

3.7**water craft driver/operator**

person having the responsibility for the towed and the towing device (watercraft or towing device)

3.8**observer**

<floating leisure articles>

additional person observing the towed device in permanent eye contact

3.9**tow rope**

connection between towing device and the towable

3.10**towing streamer**

signalisation flag attached to the rear of the towing device according to national rules

3.11**quick release system**

means to release the towable from the tow rope manually or automatically in case of an emergency by triggering a release mechanism

3.12**available area**

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

¹ in accordance with intended use.

3.13**multiple use product**

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

3.14**inherent buoyant material**

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

NOTE Inflatables made from inherent buoyant material is a buoyant structure (hull) achieving all or parts of its intended shape and buoyancy 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. When floating leisure articles provide buoyancy in several components, then requirements apply to all components. Floating leisure articles of class C 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;

— information.

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Towables of all classes shall be designed in a way that the rider when in the intended position(s) can always at least partially be seen by the observer for communication purposes by and with the observer.

In addition to this document (EN 15649-5), all requirements of EN 15649-1 and EN 15649-2 apply also for class C devices.

EN 15649-1 and EN 15649-2 are applicable as general parts. In individual cases, due to the unpredictability, variations and indeterminability of existing and future products, a corresponding choice shall be made by the test house.

4.2 Test Conditions

If not otherwise stated, all tests shall be carried out at an air temperature of $(20 \pm 3) ^\circ\text{C}$.

4.3 Design**4.3.1 General**

Design and shape of towables have constituted a certain number of constant types like the above mentioned. The entire product group of towable is however subject of permanent change in terms of shape and function. For that reason, the space per person requirements shall be applied for in a way to satisfy safety and per-