Ujuvvahendid vaba aja veetmiseks vee peal ja vees. Osa 1: Klassifikatsioon, materjalid, üldised nõuded ja katsemeetodid

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

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15649-1:2010+A2:2014 sisaldab Euroopa standardi EN 15649-1:2009+A2:2013 inglisekeelset teksti.	This Estonian standard EVS-EN 15649-1:2010+A2:2014 consists of the English text of the European standard EN 15649-1:2009+A2:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 18.12.2013.	Date of Availability of the European standard is 18.12.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 97.220.40

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15649-1:2009+A2

December 2013

ICS 97.220.40

Supersedes EN 15649-1:2009+A1:2012

English Version

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

Articles de loisirs flottants à utiliser sur ou dans l'eau - Partie 1: Classification, matériaux, exigences et méthodes d'essai générales

Schwimmende Freizeitartikel zum Gebrauch auf und im Wasser - Teil 1: Klassifikation, Werkstoffe, allgemeine Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 11 September 2009 and includes Amendment 1 approved by CEN on 29 November 2011 and Amendment 2 approved by CEN on 12 October 2013.

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-CENELEC 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-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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 15649-1:2009+A2:2013 E

Contents

Page

Foreword

This document (EN 15649-1:2009+A2:2013) 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 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 June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

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.

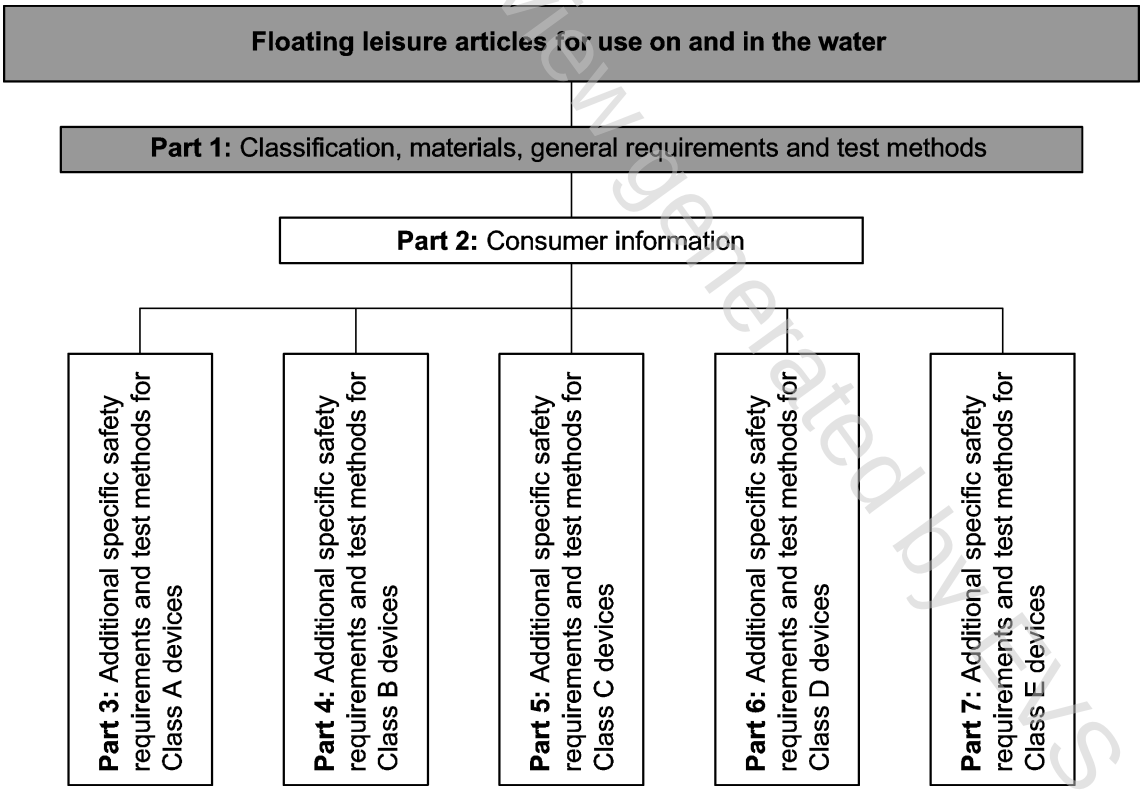
This document includes Amendment 1, approved by CEN on 2011-11-29 and Amendment 2, approved by CEN on 2013-10-12.

This document supersedes [A2] EN 15649-1:2009+A1:2012 [/A2].

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A1] [/A1] and [A2] [/A2].

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.

[A2> *Deleted text* <A2]

[A1> *deleted text* <A1]

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: 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 the United Kingdom.

0 Introduction

0.1 Motives, problems, risk assessment, methods

Investigations in statistical data related to drowning accidents and near-drownings create a new awareness about the enormous relevance of drownings in many countries. In particular, during the child age period drowning is the second most fatal accident. Due to a lack of exactness of the available statistical data, they do not reveal details concerning the relation between drowning accidents and the involvement of certain products. Such links can be shown only for segments of the wide range of water activities related products. Consumer protection has to rely on conclusions by risk analysis, experience and analogy to known cases. Considerations based on probability and the precautionary principle is the second access to the problem. That applies in particular for the product group “Floating leisure articles for use on and in the water” as this group is constituted here and now as a market segment to be addressed by standardization for safety reasons. Beyond the statistical deficiencies, relations between certain products and an increased risk of drowning are plausible. A risk analysis undertaken by WG 13 shows what the partial and final risks are.

Until now, standardization has addressed the risks through a wide series of standards aiming at the protection against drowning and covering a number of products used in leisure activities on and in the water. There are standards covering the relevant products for activities like playing in the water, water sports, boating, diving, learning to swim and even the emergency devices as buoyancy aids and live jackets. Beyond these typical and traditional activities and products, there is a new tendency for the creation and marketing of more and more new products. They are all aiming to increase pleasure and entertainment on the water but also more speed, action and thrill as far as the new adventurous activities as “tubing”, “white water rafting” etc. is concerned. The new products are partly modified traditional core products or they are derived from them and further developed to something new. Additionally, there is a clear trend to bring more and more formerly land based playground equipment on the water. The term “amphibiation” is justified as in many cases the original function of the product is maintained, i.e. they can be used both ways. Typical examples for the first mentioned kind of new products are modifications of inflatable boats into a bathing raft in fantasy shape or the further development of the earlier swim-ring into a flotation seat. Examples for “amphibians” exist in inflatable trampolines, climbing installations being put on the water for action and fun. Inflatable floating armchairs and sun loungers including the mini bar and sun shade rather serve for more comfort and relaxation when bathing. This trend is clear and very likely to continue.

It can be shown that the nature of these new products provide an equal or even higher risk potential than the original core products. In parallel, the number of these products override the number of the core products. In cases of collective use, the frequency of use is considerably increased which in turn increases the likelihood of accidents — drownings. Drowning is the final risk of the mentioned product related activities, there are other somewhat lesser evils — partial risks — which are likely to happen too independently or in combination with the final risk.

Having in mind the existing safety related standardization, an evident discrepancy emerges. Standardization in the past was focussed on the core products and has neglected the huge amount of products forming the so called “grey zone”. We always were aware of this fact, but the “grey zone” was so disturbingly complicated and never really considered and investigated. The triggering incident to change this was the swim seat case, its interaction with aquatic toys and all the many related products mentioned above. The fact of negligence highlights the reason. It was due to this inconsistency, variety and complexity that these products were usually excluded from the scopes of related standards. Experts involved in this standardization work therefore invented the term “grey zone products”. A systematic risk analysis or an investigation in drowning accidents was never made. What matters today is not so much the fact of a disturbing gap in the series of existing standards but the knowledge that there is a number of coincidences:

— all in all the main user groups of these products are children and adolescents who in turn are the main victims of drowning;

— the main areas where drowning happens are identical with the areas of use for such products (rivers, lakes, pools, bathing beaches);

— the risks can be easily identified partly proven, the increase in numbers and frequencies were already mentioned.

0.2 Equal risk, equal requirement

— Equality of risks shall lead to an equality of technical rules (risk-/rule-alignment);

— closing the standardization gap, completeness;

— setting of clear boundaries between the product areas in order to avoid incorrect certification (e.g. unjustified CE-Mark), “standard jumping” including escape from tougher standards into weaker ones, contributing to overcome the problems of an extremely wide and vague definition of aquatic toys in the toy directive (88/378/EEC) and the distinction of shallow and deep water as dividing criterion;

— avoidance of individually established testing procedures by the various test houses in the absence of a unified technical rule.

0.3 Risks and need for prevention

— Relevance of drowning is proven (age groups, places, partly product involvement);

— new products increase frequency of use and amount of products likely to contribute to accident;

— theoretical risk analysis shows additional risks below the final risk of drowning;

— plausibility and likelihood of harm to users is evident, so is the probability of adequate safety standards to avoid or minimise this;

— to contribute positively to the basic problem of parental supervision which is needed and claimed with regard to child activities but in many cases weak, not existing or neglected;

— safety by utmost inherent safety by design from the product in addition to this technical safety shall be supplemented through supervision it is recommended for younger children;

— we have to recognise that there are new trends to bring more and more former land based products on the water, as well as trends to adventure activities increasing the thrill of water related leisure activities and entertainment;

— need for prevention.

1 Scope

This European Standard specifies safety requirements and test methods related to materials, safety, performance for classified floating leisure articles for use on and in water in accordance with Clause 4 (see Table 1).

This document (EN 15649-1) is only applicable with EN 15649-2 and the relevant specific parts (EN 15649-3 to EN 15649-7).

NOTE 1 Specific safety requirements are specified in the specific parts EN 15649–3 to EN 15649–7.

NOTE 2 The specific parts can include exclusions from the general requirements specified in this document and/or EN 15649–2.

This standard is not applicable to:

[A1]

— aquatic toys according to Directive 2009/48/EC (use in shallow waters / use under supervision);

— inflatable boats with a buoyancy > 1 800 N according to Directive 94/25/EC;

— buoyant aids for swimming instructions according to Directive 89/686/EEC; [A1]

— air mattresses which are not specifically designed or intended for use on the water (e.g. velour bed, self inflating mattress and rubberized cotton air mattress);

— floating seats for angling purposes;

— surf sports type devices (e.g. body boards, surf boards);

— water ski, wakeboard or kite surfing board;

— devices made from rigid materials e.g. wood, aluminium, hard or non-deformable plastic;

— devices which are kept in shape by permanent air flow;

— rings intended for use on water slides;

— wading devices.

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 71-1:2005, *Safety of toys — Part 1: Mechanical and physical properties*

EN 13138-3:2007, *Buoyant aids for swimming instruction — Part 3: Safety requirements and test methods for swim seats to be worn*

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

[A1] EN 16051-1:2012, *Inflation devices and accessories for inflatable consumer products — Part 1: Compatibility of valves and valve adapters* [A1]

EN 20105-A02, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour (ISO 105-A2:1993)*

EN 20105-A03, *Textiles — Tests for colour fastness — Part A03: Grey scale for assessing staining (ISO 105-A03:1993)*

EN ISO 105-E03:1996, *Textiles — Tests for colour fastness — Part E03: Colour fastness to chlorinated water (swimming pool water) (ISO 105-E03:1994)*

EN ISO 105-E04, *Textiles — Tests for colour fastness — Part E04: Colour fastness to perspiration (ISO 105-E04:2008)*

EN ISO 105-X12, *Textiles — Tests for colour fastness — Part X12: Colour fastness to rubbing (ISO 105-X12:2001)*

EN ISO 868, *Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868:2003)*

EN ISO 2411, *Rubber- or plastics-coated fabrics — Determination of coating adhesion (ISO 2411:2000)*

EN ISO 3696:1995, *Water for analytical laboratory use — Specification and test methods (ISO 3696:1987)*

ISO 554, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 1817, *Rubber, vulcanized — Determination of the effect of liquids*

ISO 4675, *Rubber- or plastics-coated fabrics — Low-temperature bend test*

ISO 7619-1, *Rubber, vulcanized or thermoplastic — Determination of indentation hardness — Part 1: Durometer method (Shore hardness)*

3 Terms and definitions

〚A1〛 For the purposes of this document, the terms and definitions given in EN 16051-1:2012 and the following apply. 〚A1〛

3.1
buoyancy
resultant upthrust of a body when totally submerged in water with its uppermost part just below the water surface

NOTE For the purpose of measuring, the buoyancy of boats (see EN 15649–7) is measured as the volume of any chamber, which forms the inflatable hull including components which are permanently fixed to it. This buoyancy is measured by calculation or water filling and measuring the amount of water.

3.2
inflatable system
components (parts) of a device which contribute to stable floating conditions and/or safety

3.3
component
subgroup of the entire device which contributes to buoyancy, function and safety, integrated or detachable

3.4
static use[1]
use which requires little action with regard to the user

NOTE Product is mainly used for relaxing, sun bathing, laying, sitting, etc.

3.5
dynamic use[1]
use during which the user is in full action

NOTE Product is mainly used for activities like jumping, climbing, rollicking (horse playing, rocking), sliding, swinging in and out from the water into or onto the inflatable, etc.

[1] In accordance with intended use