
**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 complémentaire
propre aux dispositifs de Classe A*

get full document from standards.iteh.ai



Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Safety requirements and test methods	2
4.1 General	2
4.2 Design, sizing, admissible number of users and maximum load capacity	3
4.2.1 General	3
4.2.2 Sizing	3
4.2.3 A1-products, space per person and admissible number of users	3
4.2.4 A2-products, space per person and admissible number of users	4
4.3 In water performance	5
4.3.1 Amount of buoyancy and stable floating position	5
4.3.2 Residual buoyancy of devices claiming floating stability (CASES A, B)	6
4.3.3 Residual buoyancy of floating leisure articles not claiming floating stability (CASES C, D)	8
4.3.4 Capsizing and escape	9
4.3.5 Grab handles and safety lines (not applicable to air mattresses)	9
4.3.6 Re-embarkation from the water in normal use and failure of one air chamber in CASE A1	10
4.3.7 Extreme high super structure (wind, drift)	10
4.3.8 Anchorage	10
4.3.9 Giant rings with bottom, strength of entire device	11
5 Consumer information	11
5.1 General	11
5.2 Consumer information on the packaging (point of sale information)	11
5.3 Consumer information on the product (information related to safe use)	12
5.4 Consumer information by instructions for use (separate written information)	12
5.4.1 General	12
5.4.2 Safety and product information	12
5.4.3 Assembly (if applicable)	12
5.4.4 Maintenance and repair (if applicable)	12
6 Test report	12
7 Exclusions	12
Annex A (informative) Examples of typical products forming Class A	13
Bibliography	15

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

ISO 25649-3 was prepared by the European Committee Standardization (CEN) Technical Committee CEN/TC 136, *Sports, playground and other recreational facilities and equipment*, in collaboration with ISO Technical Committee TC 83, *Sports and other recreational facilities and equipment*, in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all the parts in the ISO 25649-series can be found on the ISO website.

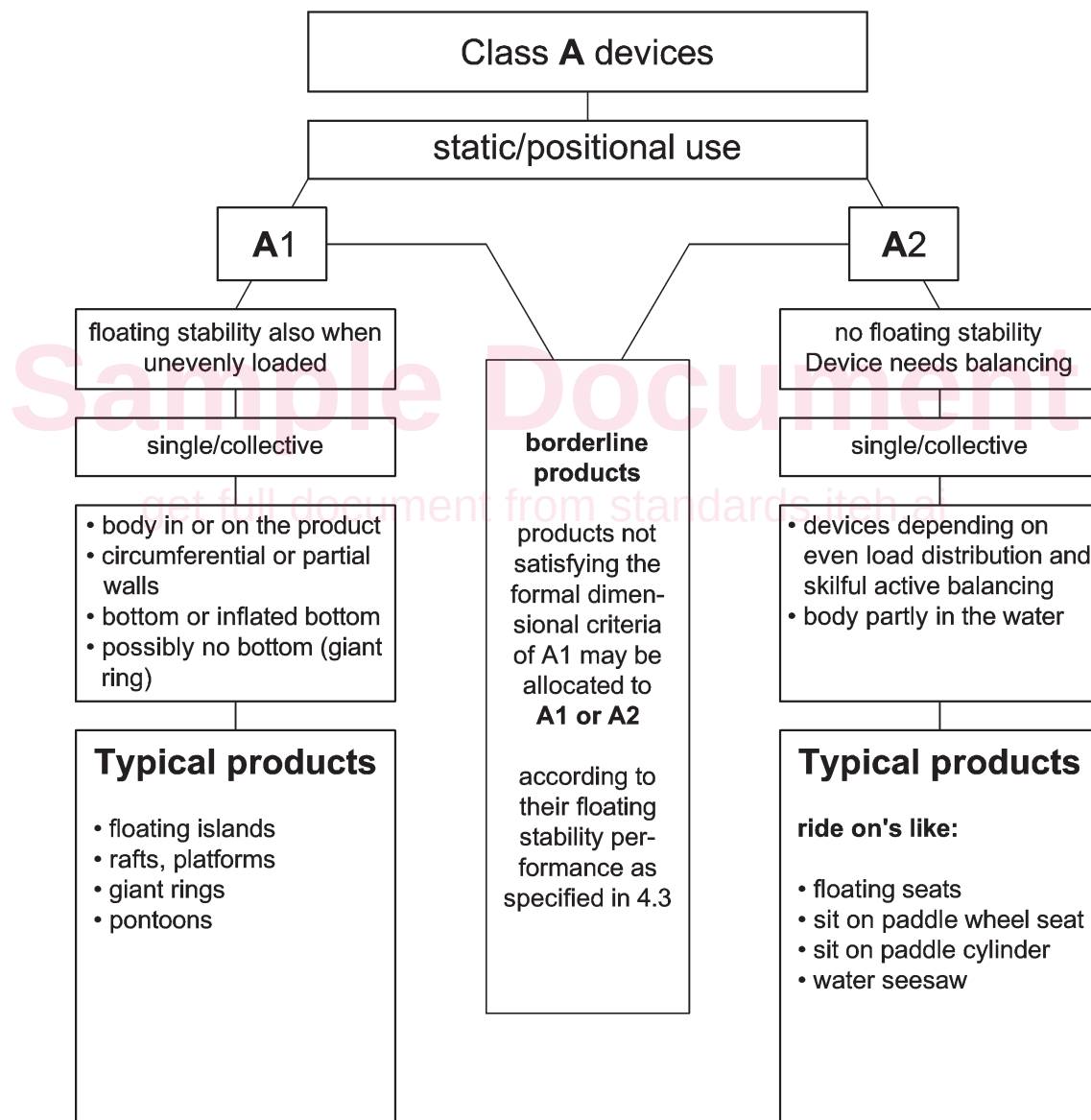
Introduction

According to the nature and the intended use of the products dealt with in this document the technical requirements are focused on space per person, floating stability matters and residual buoyancy in case of an emergency.

It needs to be taken into account that some of the products provide dual or multiple use features.

Comprehensive consumer information requirements complete the requirement profile of the document and include basic purchase information on whether a product provides floating stability or needs to be balanced by the user.

Interior Structure Class A



Risk assessment for this document is shown in [Table 1](#).

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 inflatable islands; recreational 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	DROWN-ING	Floating stability; minimum buoyancy; residual buoyancy; space; safety handles/lines; anchorage; warning notes, labelling, swimmers only, age restriction according to ISO 6185-1, ISO 6185-2 and ISO 6185-3
A2	Large buoyant structures	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		Labelling, residual buoyancy, grab handles, supervision; warnings
A1/A2	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 A1/A2	See A1/A2		See A1/A2 No rule is known to provide technical substance

Floating leisure articles for use on and in the water —

Part 3:

Additional specific safety requirements and test methods for Class A devices

1 Scope

This document is applicable for CLASS A classified floating leisure articles for use on and in water according to ISO 25649-1 regardless whether the buoyancy is achieved by inflation or inherent buoyant material.

This document is to be applied with ISO 25649-1 and ISO 25649-2.

NOTE 1 Typical products forming Class A (see Annex 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;
- 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 documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 25649-1:2017, *Floating leisure articles for use on and in the water — Part 1: Classification, materials, general requirements and test methods*

ISO 25649-2, *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 ISO 25649-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <http://www.iso.org/obp>