Flythjälpmedel för simning –
Del 2: Krav och testmetoder för hållna flythjälpmedel

Buoyant aids for swimming instruction –
Part 2: Safety requirements and test methods for buoyant aids to be held

Buoyant aids for swimming instruction - Part 2: Safety requirements and test methods for buoyant aids to be held

Aides à la flottabilité pour l’apprentissage de la natation - Partie 2: Exigences et méthodes d'essai relatives aux dispositifs à tenir

Auftriebshilfen für das Schwimmenlernen - Teil 2: Sicherheitstechnische Anforderungen und Prüfverfahren für Auftriebshilfen, die gehalten werden

This European Standard was approved by CEN on 10 August 2002.

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Foreword

This document (EN 13138-2:2002) has been prepared by Technical Committee CEN /TC 162, "Protective clothing including hand and arm protection and lifejackets", 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of an identical text or by endorsement, at the latest by April 2003, and conflicting national standards shall be withdrawn at the latest by April 2003.

The annexes A to E are normative.

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

The entire process of learning to swim is considered to include three stages:

— becoming familiar with the water environment and movements through it;
— acquiring skills in standard swimming strokes;
— developing more advanced swimming strokes and techniques.

Buoyant aids for swimming instructions (in brief: "swimming aid(s)") are intended to assist persons (in particular children) to learn to swim. The design and purpose of the devices are related to the above stages.

Swimming aids are intended to give the user positive buoyancy in the water whilst maintaining the correct body position for swimming. However, it should not be assumed that standard conformity of the devices will by itself eliminate the risk of drowning as this depends also on the behaviour of the user and any supervision.

Although this standard sets performance requirements to ensure that swimming aids perform appropriately, it is essential that the devices are used correctly and under constant and close supervision. It is important to ensure that they are securely fitted to the appropriate size of wearer and that when correctly fitted, they cannot become displaced. Swim seats however shall allow immediate escape in case of capsizing. The use of these devices shall be restricted to water out of standing depth of the wearer.

The highest degree of protection against drowning can only be achieved by using life jackets. It is essential that there is a clear distinction between devices intended to preserve life and those which are intended only to assist buoyancy for the user when learning to swim. As swimming aids are not life preservers, they should only be used in swimming pools and other situations free from current, tides and waves.

The bulk storage of some sorts of swimming aids can, under certain conditions, result in a potential fire hazard. The perceived risk of such a hazard was evaluated against the actual risk to the user from materials treated with certain known toxic fire retardant chemicals. However, the fire hazard is less of a problem to the user than the risk associated with the swimming aids being put in the mouth, especially by children. For this reason, flammability requirements are not included in the standard.

For the above reasons and to differentiate these devices from aquatic toys, advisory safety measures, including marking, warning notices and user instructions are included in this standard.

The range both of the design and function of swimming aids varies considerably and for this reason, the standard has been prepared in three parts, namely devices that are intended to allow the wearer to become familiar with water (passive wearer), devices that are worn (active wearer) and those devices that are held by the user for special training purposes.

Part 1 of the standard is for devices that are worn or carried on the body (class B devices for an active user). They are intended to introduce the user to the range of swimming strokes.

Part 2 of the standard is for devices that are held either in the hands, by the body or between the legs (class C devices for an active user) and are intended to assist with improving specific elements of the swimming stroke. For adult beginners or more advanced users they can also be used for further stages of the process to learn to swim.

Part 3, deals with swim seats as typical and common devices to assist children up to 36 month in their first attempts to learn to swim i.e. to get familiar with the "in-water-environment" and moving through it (class A devices, passive user). The child sits inside the seat, the seat provides buoyancy and lateral support to keep the child’s head above water level.

This part of the standard, Part 2, deals with devices that are held either in the hands, between the legs or by the body.
1 Scope

This European Standard specifies safety requirements for construction, performance, sizing and marking for swimming aids intended to assist users with movement through the water in the early stages of water awareness, whilst learning to swim or whilst learning part of a swimming stroke. It also gives methods of test for verification of these requirements.

This Part of this European Standard applies to class C devices that are designed to assist with improving specific elements of the stroke and which have either inherent buoyancy or can be inflated. It includes devices that are held in the hands, by the body or between the legs. It does not apply to buoyancy aids, lifejackets or aquatic toys.

2 Normative References

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

EN 71-1:1998, Safety of toys - Part 1: Mechanical and physical properties.
EN 71-3, Safety of toys - Part 3: Migration of certain elements.
EN 393:1993, Lifejackets and personal buoyancy aids - Buoyancy aids 50 N.

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

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

3.2 inherent buoyancy
upthrust provided by material which is less dense than water or by sealed chambers filled with air or gas

3.3 buoyant swimming aid
a garment or device which when worn or held correctly, and used in water under constant supervision, will provide the buoyancy required to become familiar with movement through the water, assist with learning to swim or to improve swimming strokes
3.4 **class A devices**
are intended to provide sufficient buoyancy to allow the wearer to become familiar with the water environment. They are not intended to specifically facilitate learning swimming strokes. They will keep a passive wearer in such a position that the base of the chin is at or above the water surface.

3.5 **class B devices**
are intended to be worn and to provide the wearer with buoyancy appropriate to the needs of the swimming stroke that is being taught. The buoyancy will be sufficient to allow the body to adopt a near normal position in the water appropriate to the stroke or part of the stroke.

3.6 **class C devices**
are intended to be held in the hands, by the body or between the legs and to assist with improving specific elements of a swimming stroke.

3.7 **kick board**
a buoyant device designed to be held in the hands or by the arms in order to support the body in a horizontal and stable position in the water to assist the user to improve leg action.

3.8 **pull buoy**
a buoyant device designed to be held between the legs to maintain the legs in a horizontal position in the water to assist the user to improve arm action.

3.9 **devices to be worn**
have either inherent buoyancy or may be inflated to provide buoyancy and which is attached to the body in such a way that it cannot be accidentally removed and so as to provide the wearer with positive buoyancy.

3.10 **swimseat**
are intended to provide sufficient buoyancy to allow a wearer up to the age of 36 months to become familiar with the water environment. They are not intended to specifically facilitate learning swimming strokes. They will keep a passive wearer in such a position that the base of the chin is at or above the water surface.

3.11 **devices to be held**
are held either in the hands or between the legs or by the body and provides buoyancy whilst it is being held by the user.

3.12 **conditioning**
a process, prior to any testing, to which the complete device shall be submitted and comprising a number of cycles, to simulate the conditions to which the device is likely to be subjected in normal use and storage. The conditioning process will include immersion in chlorinated, salt, swimming pool water and storage in cold and hot conditions.

### 4 Classification

Buoyant swimming aids shall be classified by design [class] as set out in Table 1: