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Institut luxembourgeois de la normalisation
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Buoyant aids for swimming instruction - Part 1: Safety requirements and test methods for buoyant aids to be worn

Aides à la flottabilité pour l'apprentissage de la natation - Partie 1: Exigences de sécurité et méthodes d'essais pour les aides à la flottabilité

Auftriebshilfen für das Schwimmenlernen - Teil 1: Sicherheitstechnische Anforderungen und Prüfverfahren für am Körper getragene Auftriebshilfen

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National Foreword

This European Standard EN 13138-1:2003 was adopted as Luxembourgish Standard ILNAS-EN 13138-1:2003.

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Buoyant aids for swimming instruction - Part 1: Safety requirements and test methods for buoyant aids to be worn

Aides à la flottabilité pour l'apprentissage de la natation - Partie 1: Exigences de sécurité et méthodes d'essais pour les aides à la flottabilité dispositif porté au corps

Auftriebshilfen für das Schwimmenlernen - Teil 1: Sicherheitstechnische Anforderungen und Prüfverfahren für am Körper getragene Auftriebshilfen

This European Standard was approved by CEN on 14 February 2003.

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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 Management Centre has the same status as the official versions.

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

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Foreword

This document (EN 13138-1:2003) 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of an identical text or by endorsement, at the latest by November 2003, and conflicting national standards shall be withdrawn at the latest by November 2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The annexes A to H 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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 could, 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 and are intended (class C devices for an active user) 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 months in their first attempts to learn to swim i.e. to get familiar with the "in-water-environment" and movement 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 1, deals with devices that are worn on the body and that cannot be accidentally discarded. As such, these devices are classed as PPE.

1 Scope

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

This European Standard, Part 1, applies to devices that are designed to be worn or are carried on the body and which have either inherent buoyancy or can be inflated. It includes Class B devices intended to introduce the wearer to the range of swimming strokes. 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*

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

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-E04:1994)

EN ISO 105-X12, *Textiles — Tests for colour fastness* - Part X12: Colour fastness to rubbing (ISO 105-X12:1993)

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

3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply:

3.1
swimming aid
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.

3.2
buoyancy
resultant upthrust of a swimming aid when totally submerged in fresh water with its uppermost part just below the water surface.

3.3
inherent buoyancy
upthrust provided by material which is less dense than water or by sealed chambers filled with air or gas.