

საქართველოს სტანდარტი

სსკ: 13.340.70

პერსონალური ფლოტაციური საშუალებები - ნაწილი 6: სპეციალური
დანიშნულების მაშველი ჟილეტები და მცურავი საშუალებები -
უსაფრთხოების მოთხოვნები და დამატებითი გამოცდის მეთოდები
(ისო 12402-6:2020)

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

სსტ ენ ისო 12402-6:2020/2021

საინფორმაციო მონაცემები

1 მიღებულია და დაშვებულია სამოქმედოდ: სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს გენერალური დირექტორის 24/05/2021 წლის № 31 განკარგულებით

2 მიღებულია „თავფურცლის“ თარგმნის მეთოდით: სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ ისო 12402-6:2020 „პერსონალური ფლოტაციური საშუალებები - ნაწილი 6: სპეციალური დანიშნულების მაშველი ჟილეტები და მცურავი საშუალებები - უსაფრთხოების მოთხოვნები და დამატებითი გამოცდის მეთოდები (ისო 12402-6:2020)“

3 პირველად

4 რეგისტრირებულია: სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 24/05/2021 წლის №268-1.3-020296

წინამდებარე სტანდარტის ნებისმიერი ფორმით გავრცელება სააგენტოს ნებართვის გარეშე აკრძალულია

English Version

Personal flotation devices - Part 6: Special application
lifejackets and buoyancy aids - Safety requirements and
additional test methods (ISO 12402-6:2020)

Équipements individuels de flottabilité - Partie 6: Gilets
de sauvetage et aides à la flottabilité pour usages
spéciaux - Exigences de sécurité et méthodes d'essai
complémentaires (ISO 12402-6:2020)

Persönliche Auftriebsmittel - Teil 6: Rettungswesten
und Schwimmhilfen für besondere Einsatzzwecke -
Sicherheitstechnische Anforderungen und zusätzliche
Prüfverfahren (ISO 12402-6:2020)

This European Standard was approved by CEN on 26 July 2020.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword..... 3

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

European foreword

This document (EN ISO 12402-6:2020) has been prepared by Technical Committee ISO/TC 188 "Small craft" in collaboration with 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 March 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 12402-6:2006.

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

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 12402-6:2020 has been approved by CEN as EN ISO 12402-6:2020 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the essential requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment aimed to be covered

This European Standard has been prepared under a Commission's standardization request to provide one voluntary means of conforming to essential requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment.

Once this standard is cited in the Official Journal of the European Union under that Regulation (EU) 2016/425, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Regulation (EU) 2016/425 and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Regulation (EU) 2016/425

Essential Requirements of Regulation (EU) 2016/425		Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.1.2.2	Classes of protection appropriate to different levels of risk	4.2	
1.2.1	Absence of risks and other inherent' nuisance factors	6.2.1 and 6.2.2; 6.3.1 and 6.3.2; 6.4.1 and 6.4.2.2; 6.4.2.3; 6.6.1; 7.2.1;7.2.2; 7.3.2; 7.4.1 and 7.4.2.1 to 7.4.2.5; 7.5.1; 7.5.2.1 and 7.5.2.2; 7.6.1; 7.7.1 and 7.7.2; 7.8.2; 7.9.1 and 7.9.2.	
1.3.3	Compatibility of different types of PPE intended for simultaneous use	7.8.2.3	
1.4	Manufacturer's instructions and information	6.2.3; 6.3.3; 6.4.3; 6.5.3; 6.6.2; 7.2.3; 7.3.3; 7.4.3; 7.5.3; 7.6.3; 7.7.4; 7.8.3; 7.9.3.	
3.4.1	Prevention of drowning	6.5.1 and 6.5.2; 7.2.1 and 7.2.2.1; 7.4.2.6; 7.6.1 and 7.6.2; 7.7.3.2	
3.4.2	Buoyancy aids	6.4.1 and 6.4.2.1; 6.5.1 and 6.5.2; 7.4.2.6; 7.7.3.2	

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

საინფორმაციო ნაწილი. სრული ტექსტის სახანაგად შეიძლება სტანდარტი.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

Personal flotation devices —

Part 6:

**Special application lifejackets and
buoyancy aids — Safety requirements
and additional test methods**

Équipements individuels de flottabilité —

*Partie 6: Gilets de sauvetage et aides à la flottabilité pour
usages spéciaux — Exigences de sécurité et méthodes d'essai
complémentaires*





COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Classification of PFDs	4
4.1 Classes.....	4
4.1.1 Buoyancy aids.....	4
4.1.2 Lifejackets.....	4
4.1.3 Special application PFDs.....	4
4.2 Performance levels.....	4
4.2.1 Level 50.....	4
4.2.2 Level 100.....	5
4.2.3 Level 150.....	5
4.2.4 Level 275.....	5
5 Special application PFDs	5
5.1 General.....	5
5.2 Application-specific PFDs.....	5
5.3 User-assisted PFDs.....	6
6 Requirements for user-assisted PFDs	6
6.1 Principles.....	6
6.2 User-convertible inflatable PFDs.....	7
6.2.1 General.....	7
6.2.2 Additional requirements for user-convertible inflatable PFDs.....	7
6.2.3 Additional marking, information supplied by the manufacturer, and consumer information at point of sale for user-convertible inflatable PFDs.....	7
6.3 Manual-only inflatable PFDs.....	8
6.3.1 General.....	8
6.3.2 Additional requirements for manual-only inflatable PFDs.....	8
6.3.3 Additional marking, information supplied by the manufacturer, and consumer information at point of sale for manual-only inflatable PFDs.....	8
6.4 Inherently buoyant flotation suit PFDs.....	8
6.4.1 General.....	8
6.4.2 Specific requirements for inherently buoyant flotation suit PFDs.....	9
6.4.3 Additional marking, information supplied by the manufacturer, and consumer information at point of sale for inherently buoyant flotation suit PFDs.....	9
6.5 Hybrid PFDs.....	10
6.5.1 General.....	10
6.5.2 Specific requirements for hybrid PFDs.....	10
6.5.3 Additional marking, information supplied by the manufacturer, and consumer information at point of sale for hybrid PFDs.....	10
6.6 PFDs without a cylinder seal indicator.....	10
6.6.1 General.....	10
6.6.2 Additional marking, information supplied by the manufacturer, and consumer information at point of sale for PFDs without cylinder seal indication.....	11
7 Requirements for application-specific PFDs	11
7.1 General.....	11
7.1.1 Principles.....	11
7.1.2 Basic requirements.....	11
7.2 Offshore sailing lifejackets.....	11
7.2.1 General.....	11

7.2.2	Specific requirements for offshore sailing lifejackets.....	12
7.2.3	Additional marking, information supplied by the manufacturer, and consumer information at point of sale for offshore sailing lifejackets.....	12
7.3	PFDs for firefighting application.....	12
7.3.1	General.....	12
7.3.2	Specific requirements for PFDs for firefighting application.....	12
7.3.3	Additional marking, information supplied by the manufacturer, and consumer information at point of sale for PFDs for firefighting application.....	13
7.4	Commercial white-water PFDs.....	13
7.4.1	General.....	13
7.4.2	Specific requirements for PFDs intended for commercial white-water.....	13
7.4.3	Additional marking, information supplied by the manufacturer, and consumer information at point of sale for commercial white-water PFDs.....	15
7.5	PFDs for personal water craft, water skiing, or similar towed uses.....	15
7.5.1	General.....	15
7.5.2	Specific requirements for PFDs for personal water craft, water skiing, or similar towed uses.....	15
7.5.3	Additional marking.....	16
7.6	Inflatable PFDs for cold environment.....	16
7.6.1	General.....	16
7.6.2	Specific Requirements for PFDs for cold environment.....	16
7.6.3	Additional marking, information supplied by the manufacturer, and consumer information at point of sale for PFDs for cold environment.....	17
7.7	PFDs for swift water rescue.....	18
7.7.1	General.....	18
7.7.2	Specific requirements for PFDs used for swift water rescue.....	18
7.7.3	Specific tests for PFDs used for swift water rescue.....	19
7.7.4	Additional marking, information supplied by the manufacturer, and consumer information at point of sale for PFDs used for swift water rescue.....	20
7.8	PFDs for fall arrest.....	20
7.8.1	General.....	20
7.8.2	Specific requirements for PFDs for fall arrest.....	21
7.8.3	Additional marking, information supplied by the manufacturer, and consumer information at point of sale for PFDs for fall arrest.....	21
7.9	PFDs with quick-release harness systems.....	21
7.9.1	General.....	21
7.9.2	Quick-release mechanism test.....	22
7.9.3	Additional marking, information supplied by the manufacturer, and consumer information at point of sale for PFDs with quick-release harness systems.....	22
Bibliography.....		24

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 of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 188, *Small craft*, Subcommittee SC 1, *Personal safety equipment*.

This second edition cancels and replaces the first edition (ISO 12402-6:2006), which has been technically revised. It also incorporates the Amendment ISO 12402-6:2006/Amd. 1:2010.

The main changes compared to the previous edition are as follows:

- a) complete new structure;
- b) new clauses for requirements for user-assisted PFDs ([Clause 6](#)) and requirements for application-specific PFDs ([Clause 7](#));
- c) new definitions for application-specific PFDs;
- d) amendment of [Table 1](#), for loads and durations for tensile test of white-water PFDs;
- e) new [Table 2](#), for loads and durations for tensile test of swift water rescue PFDs.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

- to provide automatically operating (inherently buoyant or automatically inflated) PFDs that float users without any intervention on their part, except in initially donning the PFD (and regular inspection and rearming of inflatable types), or to provide user control of the inflatable PFDs buoyancy by manual and oral operation; and
- to assist in detection (location aids) and recovery of the user.

PFDs provide various degrees of buoyancy in garments that are light in weight and only as bulky and restrictive as needed for their intended use. They need to be secure when worn, in order to provide positive support in the water and to allow users to swim or actively assist themselves or others. The PFD selected ensures that the user is supported with the mouth and nose clear of the water under the expected conditions of use and the user's ability to assist.

Under certain conditions (such as rough water and waves), the use of watertight and multilayer clothing, which provide (intentionally or otherwise) additional buoyancy, or the use of equipment with additional weight (such as tool belts) can alter the performance of the PFD. Users, owners and employers need to ensure that this is taken into account when selecting a PFD. Similarly, it is possible that PFDs do not perform as well in extremes of temperature, although meeting ISO 12402 (all parts):2020 requirements. PFDs can also be affected by other conditions of use, such as chemical exposure and welding, and can require additional protection to meet the specific requirements of use. Taking a PFD into such conditions necessitates the assurance that the PFD will not be adversely affected. ISO 12402 (all parts):2020 also allows a PFD to be an integral part of a safety harness designed to conform to ISO 12401:2009, or an integral part of a garment with other uses, for example to provide thermal protection during immersion, in which case the complete assembly as used is expected to conform to ISO 12402 (all parts):2020.

In compiling the attributes required of a PFD, consideration has also been given to the potential length of service that the user might expect. Whilst a PFD needs to be of substantial construction and material, its potential length of service often depends on the conditions of use and storage, which are the responsibility of the owner, user and/or employer. Furthermore, whilst the performance tests included are believed to assess relevant aspects of performance in real-life use, they do not accurately simulate all conditions of use. For example, the fact that a device passes the self-righting tests in swimming attire, as described herein, does not guarantee that it will self-right an unconscious user wearing clothing; neither can it be expected to completely protect the airway of an unconscious person in rough water. Waterproof clothing can trap air and further impair the self-righting action of a lifejacket.

It is essential that owners, users and employers choose those PFDs that meet the correct standards for the circumstances in which they will be used.

The characteristics of the product properties, alternative choices and the limitations to normal use are to be explained to potential buyers by manufacturers and distributors of PFDs prior to purchase.

Similarly, it is advised that regulators regarding the use of these garments consider carefully which class and performance levels are most appropriate for the foreseeable conditions of use, allowing for the higher risk circumstances. These higher risk circumstances should account for the highest probabilities of occurrence of accidental immersion and expected consequences. Requirements and recommendations for the correct selection and application of PFDs are given in ISO 12402-10:2020.