



BSI Standards Publication

Ships and marine technology — Personal and group survival kit for use in polar water

National foreword

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Ships and marine technology — Personal and group survival kit for use in polar water





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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).

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This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 1, *Maritime safety*.

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.

Introduction

This document contains detailed specifications for various items of survival equipment carried in personal survival kits (PSK) and group survival kits (GSK) in compliance with the International Code for Ships Operating in Polar Waters (Polar Code) of the International Maritime Organization (IMO).

Under the Polar Code, the ship owner or operator must conduct a risk assessment to decide or adjust the number of kits (PSK and/or GSK) required and equipment carried in the kits for a vessel operating in polar water.

This document provides a minimum requirement for PSK and GSK as per new research available in the marine industry. It is intended to supplement the IMO requirements for lifesaving appliances used in polar waters [\[4\]](#). This document aims to provide information on how to: increase the chances of survival for all persons in polar waters, reduce the duration of the search phase to minimize exposure time, and increase the ability of a person to self-rescue.

This document is based on the assumption that thermal equilibrium is maintained only by insulation. Active heating may be considered as an alternative design, provided it is serviced and maintained, to ensure its reliability, at the same interval of the survival craft that contains them (see References [\[5\]](#), [\[6\]](#) and [\[7\]](#)) and provided that it is capable of operating continuously for the maximum expected time of rescue (as of IMO MSC.1/Circ.1614, section 4.4)[\[4\]](#). For cases where alternative designs are used, the thermal resistance formula in [4.3](#) can be modified since it is based solely on a passive system. While the section on group survival kit does discuss shelters, this document distinguishes between using a survival craft as a shelter and the use of other temporary shelters. It is recognized that when a survival craft is used as a shelter, it is not expected to comply with the requirements found within [6.1.6](#) to [6.1.9](#) of this document. In addition, extra consideration is given to ensure it can be properly anchored on snow/ice/land.

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1 Scope

This document specifies design, performance and use of items of survival equipment, as part of a personal survival kit (PSK) and a group survival kit (GSK) that are required by the 1974 International Convention of the Safety of Life at Sea (1974 SOLAS) as amended, in particular chapter XIV (MSC.386(94)) and the International Code for Ships Operating in Polar Waters (Polar Code - MSC.385 (94) and MEPC.264(68), as amended).

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.

ANSI/NEMA FL 1, *Electric torch basic performance document*

ASTM D4772 *Standard Test Method for Surface Water Absorption of Terry Fabrics (Water Flow)*

ASTM F659-10, *Standard Specification for Ski and Snowboard Goggles*

ASTM F3340-18, *Standard Test Method for Thermal Resistance of Camping Mattresses Using a Guarded Hot Plate Apparatus*

DIN EN 511, *Protective gloves against cold*

NSF/ANSI 173, *Dietary Supplements*

International Life-Saving Appliance Code (LSA Code), adopted by IMO Resolution MSC.48(66), as amended

IMO MSC. 1/Circ. 1614:2019, *Interim guidelines on life-saving appliances and arrangements for ships operating in polar waters*

IMO MSC. 81 (70), *Revised recommendation on testing of life-saving appliances*

[ISO 12402-8](#), *Personal flotation devices — Part 8: Accessories — Safety requirements and test methods*

[ISO 15831](#), *Clothing — Physiological effects — Measurement of thermal insulation by means of a thermal manikin*

[ISO 18813](#), *Ships and marine technology — Survival equipment for survival craft and rescue boats*

[ISO 20877](#), *Footwear — Test methods for whole shoe — Thermal insulation*

[ISO 23537-1:2022](#), *Requirements for sleeping bags — Part 1: Thermal and dimensional requirements*

[ISO 24444:2019](#), *Cosmetics — Sun protection test methods — In vivo determination of the sun protection factor (SPF)*