SLOVENSKI STANDARD
kSIST FprEN ISO 21853:2019

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Zmajarstvo na vodi/snegu - Varnostni sistem za spuščanje zmaja - Varnostne zahteve in preskusne metode (ISO/FDIS 21853:2019)

Kite boarding - Release system - Safety requirements and test methods (ISO/FDIS 21853:2019)

Kite-Boarding - Sicherheitssystem zum Auslösen des Kite - Sicherheitstechnische Anforderungen und Prüfverfahren (ISO/FDIS 21853:2019)

Kite boarding - Système de largage pour cerf volant - Éxigences de sécurité et méthodes d'essai (ISO/FDIS 21853:2019)

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Kite boarding — Release system — Safety requirements and test methods

Kite boarding — Système de largage pour cerf volant - Éxigences de sécurité et méthodes d'essai

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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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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 83, *Sports and other recreational facilities and equipment*.

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

In the last two decades, the sport of kite boarding/kite surfing has transformed from a marginal sport to a popular sport performed by people of varying age groups and physiological condition levels. However, it cannot be neglected that kite boarding still is considered an "extreme sport" due to risks associated with speed, water and nature and unforeseeable situations related to these. If a situation arising cannot be controlled by the user, the release system will be the component which would most likely prevent emergencies, incidents,further injuries, or death.

This document has been developed in connection with the Global Kitesports Association (GKA) and other stakeholders, such as trainers/instructors, test houses, universities and other manufacturers. The aim of this document is to lower the risks associated with the sport for users and others.

When developing this document, requirements and test methods have been considered that resemble as closely as possible situations occurring and conditions present while performing the sport. One of the aspects was related to salt water. Tests conducted for validating the test methods have shown that using salt water or non-salted water has no effect on the test results. In order to keep the test method as simple as possible, it was seen more practical for the test to use non-salted water. In contrast to salt water, sand has shown to have prominent effect on the function of the components and consequently the test results.

Kite boarding — Release system — Safety requirements and test methods

1 Scope

This document specifies the minimum safety requirement and test methods for a release system that reduces the pulling force of the kite and disconnects the user from the kite.

This document is applicable for release systems which are operated intentionally by the user or another person, and are used for the sport of kite boarding.

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 679, *Cement — Test methods — Determination of strength*

EN 12275, *Mountaineering equipment — Connectors — Safety requirements and test methods*

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
kite
wing which generates an aerodynamic force and propels the user

EXAMPLE A wing that uses wind.

3.2
kite boarding
sum of the disciplines that can be performed with a *kite* (3.1) attached to the user with any kind of board in any kind of environment

EXAMPLE Kite surfing, landboarding.

3.3
connection point
equipment on the harness or similar means affixed to the user where the *main release system* (3.4) is attached

3.4
connecting link
part which allows the rider to stay connected to the kite via the disconnecting release system after triggering the main release system

EXAMPLE A leash.

3.5
release system
set of elements dedicated to reduce the risk of the user and of third parties, providing the functions of the main release system and/or disconnecting release system

3.5.1
main release system
system that, when triggered via the trigger element, reduces or cancels the pulling force generated by the kite

3.5.2
disconnecting release system
system that, when triggered via the trigger element, disconnects the user from the kite completely

3.6
control system
sum of the components held in the user's hand that enable the kite to turn and the traction force to be altered

EXAMPLE A bar.

3.7
act of triggering
act of movement from first intended movement of any triggering element and releasing element until the system releases

3.8
space of activation
space required for the movement of all the involved triggering elements and releasing elements to function properly

4 Safety requirements

4.1 General

After each use, the release system shall not show signs of permanent deformation or of having been affected by the triggering in any way that could provoke malfunction.

Test in accordance with 5.6.

4.2 Strength

If used, the main release system, the disconnecting release system and the connecting link shall withstand a load of three times the maximum user weight as intended by the manufacturer or 3 600 N, whichever is greater, without any breakage and shall still function as intended by the manufacturer.

Test in accordance with 5.6.2.

4.3 Design

The design of the release system shall indicate how to trigger it. The direction of triggering shall be permanently identifiable.

Test in accordance with 5.8.

EXAMPLE 1 An example for this is a 3D structure (such as an embossed or elevated arrow) on the surface, or a colour.