

Kiivrid aerutamiseks ja kärestikuspordiks

Helmets for canoeing and white water sports

This document is a preview generated by EVS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 1385:2012 sisaldab Euroopa standardi EN 1385:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 1385:2012 consists of the English text of the European standard EN 1385:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 08.02.2012.	Date of Availability of the European standard is 08.02.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 13.340.20

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

English Version

Helmets for canoeing and white water sports

Casques utilisés dans la pratique du canoë-kayak et des sports en eau vive

Helme für den Kanu- und Wildwassersport

This European Standard was approved by CEN on 17 December 2011.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 White water classification of rivers	6
5 Construction	7
5.1 Materials	7
5.2 Extent of shell	7
5.3 Holes	7
5.4 Projections	7
5.5 Retention system	8
5.6 Face guards and visors	8
6 Performance requirements	9
6.1 Impact protection	9
6.2 Retention system strength	9
6.3 Retention system effectiveness	9
6.4 Buoyancy	10
7 Testing	10
7.1 General	10
7.2 Headforms	10
7.3 Number of samples and sequence of tests	10
7.3.1 Number of samples	10
7.3.2 Sequence of tests	10
7.4 Test area	11
7.5 Conditioning	11
7.5.1 High temperature conditioning	11
7.5.2 Low temperature conditioning	11
7.5.3 Water immersion	11
7.5.4 Artificial ageing	11
7.6 Impact protection resistance	12
7.6.1 Apparatus	12
7.6.2 Procedure	12
7.7 Test for strength of retention system	13
7.7.1 Apparatus	13
7.7.2 Procedure	14
7.8 Retention system effectiveness	14
7.8.1 Apparatus	14
7.8.2 Procedure	14
8 Marking	17
9 Information to be supplied by the manufacturer	18
Annex A (informative) Alternative procedure for artificial ageing	19
Annex B (informative) Significant technical changes between this European Standard and EN 1385:1997	20
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC Personal Protective Equipment	21
Bibliography	22

Foreword

This document (EN 1385:2012) has been prepared by Technical Committee CEN/TC 158 "Head protection", the secretariat of which is held by BSI.

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 August 2012, and conflicting national standards shall be withdrawn at the latest by August 2012.

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

This document supersedes EN 1385:1997.

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.

Annex B provides details of significant technical changes between this European Standard and the previous edition.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The most common head injury in canoeing and white water sports happens when a person strikes an underwater object after capsizing. Under these circumstances it is extremely unlikely that the speed of impact will be greater than 18 km/h (5 m/s) because this is the highest recorded rate of flow in a white water river. The most common site of injury is the frontal or forehead area or the side of the eye socket.

To achieve the performance of which the helmet is capable, and to ensure stability on the head, it needs to be as close fitting as possible consistent with comfort. The helmet needs to be securely fastened on to the head, and any chin strap has to be under tension at all times.

The protection given by a helmet depends on the circumstances of the accident and wearing a helmet does not always prevent death or long term disability.

A proportion of the energy of an impact is absorbed by the helmet, thereby reducing the force of the blow sustained by the head. The structure of the helmet may be damaged in absorbing this energy and any helmet that sustains a severe blow needs to be replaced even if damage is not apparent.

This European Standard includes the International Canoe Federation classification of risks.

1 Scope

This European Standard specifies requirements for helmets for canoeing and white water sports for use in waters of classes 1 to 4 as classified by Clause 4. The levels of protection recognise that most fatalities in canoeing and white water sports result from drowning after concussion and not from brain damage.

This European Standard is not intended to apply to helmets for use in extreme white water situations such as those where the jumping of high waterfalls is undertaken, because the need for impact absorption for such a helmet, and the area of the head to be protected, are greater than those for most canoeing and white water sports. The standard applies to helmets with and without holes in the shell.

NOTE This European Standard does not provide performance requirements for visors, chin-guards or face-guards.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 960:2006, *Headforms for use in the testing of protective helmets*

ISO 6487, *Road vehicles — Measurement techniques in impact tests — Instrumentation*

3 Terms and definitions

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

- 3.1**
canoeing
normal use of a canoe or of a kayak, in white water of classes 1 to 4 classified in accordance with Clause 4
- 3.2**
white water sports
non-powered sporting activities carried out in and/or on moving water as defined by classes 1 to 4 in accordance with Clause 4
- 3.3**
helmet
headwear that is intended to protect the wearer's head from concussion
- 3.4**
shell
material that provides the general outer form of the helmet
- 3.5**
protective padding
lining material used to either absorb impact energy or improve the wearer's comfort
- 3.6**
retention system
entire assembly of components that prevent the helmet coming off the head
- 3.7**
chin strap
strap passing under the wearer's lower jaw that is intended to prevent the helmet coming off the head