

## **Helmets for airborne sports**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 966:2012+A1:2013 sisaldab Euroopa standardi EN 966:2012+A1:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 966:2012+A1:2013 consists of the English text of the European standard EN 966:2012+A1:2012.
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 31.10.2012.	Date of Availability of the European standard is 31.10.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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English Version

## Helmets for airborne sports

Casques de sports aériens

Luftsporthelme

This European Standard was approved by CEN on 17 December 2011 and includes Amendment 1 approved by CEN on 19 July 2012.

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.

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## Contents

Page

<b>Foreword</b>	<b>4</b>
<b>Introduction</b>	<b>5</b>
<b>1 Scope</b>	<b>6</b>
<b>2 Normative references</b>	<b>6</b>
<b>3 Terms and definitions</b>	<b>6</b>
<b>4 Materials</b>	<b>8</b>
<b>5 Construction</b>	<b>8</b>
5.1 General	8
5.2 Retention system	9
5.2.1 General	9
5.2.2 Chin straps	9
5.2.3 Fastening devices	9
5.3 Finish	9
5.4 Field of vision	9
5.5 Head mobility	9
5.6 Eye protection	10
<b>6 Performance requirements</b>	<b>10</b>
6.1 General	10
6.2 Impact absorbing capacity within the test area	10
6.2.1 Shock absorbing capacity	10
6.2.2 Resistance to penetration	10
6.3 Retention system performance	10
6.3.1 Retention system strength	10
6.3.2 Retention system effectiveness	10
6.3.3 Release of the retention system	11
6.3.4 Assemblies	11
<b>7 Tests</b>	<b>11</b>
7.1 Sequence and number of samples to be tested	11
7.2 Determination of impact absorbing capacity	11
7.2.1 Test area	11
7.2.2 Conditioning	12
7.2.3 Shock absorption test	12
7.2.4 Penetration resistance test	13
7.3 Retention system testing	15
7.3.1 Determination of retention system strength	15
7.3.2 Determination of retention system effectiveness	16
7.4 Determination of field of vision	16
7.5 Test report	16
<b>8 Marking</b>	<b>17</b>
<b>9 Information for users</b>	<b>17</b>
<b>Annex A (normative) Positioning of the helmet on the headform</b>	<b>22</b>
<b>Annex B (normative) Test area</b>	<b>23</b>
<b>Annex C (normative) Field of vision</b>	<b>25</b>
<b>Annex D (informative) Alternative procedure for artificial ageing</b>	<b>28</b>

**Annex E (informative) Significant technical changes between this European Standard and EN 966:1996 ..... 29**

**Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC Personal Protective Equipment ..... 30**

**Bibliography ..... 31**

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## Foreword

This document (EN 966:2012+A1:2012) 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 April 2013, and conflicting national standards shall be withdrawn at the latest by April 2013.

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 includes Amendment 1 approved by CEN on 19 July 2012.

This document supersedes A1 EN 966:2012 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, 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 protection given by a helmet depends on the circumstances of the accident and wearing a helmet cannot 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.

To achieve the performance of which it is capable, and to ensure stability on the head, a helmet should be as closely fitting as possible consistent with comfort. In use, it is essential that the helmet is securely fastened, with any chin strap under tension at all times.

## 1 Scope

This European Standard specifies requirements and test methods for protective helmets used in paragliding, hang gliding and flying with ultra-light aeroplanes.

Helmets for airborne sports are indicated in this European Standard as follows:

- category HPG: Helmets for paragliding and hang gliding;
- category UL: Helmets for flying with ultra-light aeroplanes.

Requirements and the corresponding methods of test, where appropriate, are given for the following:

- construction including chin strap, fastening devices, field of vision, head mobility and eye protection;
- penetration resistance;
- shock-absorbing properties;
- retention system properties;
- marking and information for users.

NOTE The requirements cover both categories. Special requirements are contained in the relevant clauses.

This European Standard does not apply to other kinds of head protection used in airborne sports.

## 2 Normative references

**[A1]** 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. **[A1]**

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

#### **protective helmet**

helmet primarily intended to protect the wearer's head against impact; some helmets can provide additional protection

### 3.2

#### **shell**

material that provides the general outer form of the helmet

### 3.3

#### **helmet type**

category of helmets which does not differ in such essential respects as: