



Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

**ILNAS-EN 13087-5:2012**

**Protective helmets - Test methods -  
Part 5: Retention system strength**

Schutzhelme - Prüfverfahren - Teil 5:  
Festigkeit des Haltesystems

Casques de protection - Méthodes d'essai  
- Partie 5: Résistance du système de  
rétention

**02/2012**



## National Foreword

This European Standard EN 13087-5:2012 was adopted as Luxembourgish Standard ILNAS-EN 13087-5:2012.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

### **THIS PUBLICATION IS COPYRIGHT PROTECTED**

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

EUROPEAN STANDARD <sup>ILNAS-EN 13087-5:2012</sup> **EN 13087-5**  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

February 2012

ICS 13.340.20

Supersedes EN 13087-5:2000

English Version

**Protective helmets - Test methods - Part 5: Retention system  
strength**

Casques de protection - Méthodes d'essai - Partie 5:  
Résistance du système de rétention

Schutzhelme - Prüfverfahren - Teil 5: Festigkeit des  
Haltesystems

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 Prerequisites .....	5
5 Methods .....	5
5.1 General.....	5
5.2 Headform support, increasing load method .....	6
5.2.1 Principle.....	6
5.2.2 Apparatus .....	6
5.2.3 Procedure .....	7
5.2.4 Test report .....	7
5.3 Hook support, dynamic load method .....	7
5.3.1 Principle.....	7
5.3.2 Apparatus .....	7
5.3.3 Procedure .....	8
5.3.4 Test report .....	9
5.4 Headform support, dynamic load method .....	9
5.4.1 Principle.....	9
5.4.2 Apparatus .....	9
5.4.3 Procedure .....	10
5.4.4 Test report .....	10
Annex A (normative) Test results – Uncertainty of measurement.....	15
Annex B (informative) Significant technical changes between this European Standard and EN 13087-5:2000.....	16
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC Personal Protective Equipment .....	17

## Foreword

This document (EN 13087-5:2012) 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 13087-5:2000.

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.

This European Standard consists of the following ten parts:

*Part 1 : Conditions and conditioning;*

*Part 2 : Shock absorption;*

*Part 3 : Resistance to penetration;*

*Part 4 : Retention system effectiveness;*

*Part 5 : Retention system strength;*

*Part 6 : Field of vision;*

*Part 7 : Flame resistance;*

*Part 8 : Electrical properties;*

*Part 9 : Mechanical rigidity<sup>1</sup>;*

*Part 10 : Resistance to radiant heat.*

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.

---

<sup>1</sup> To be published.

## Introduction

This European Standard is intended as a supplement to the specific product standards for protective helmets (helmet standards). This method or other test methods may be applicable to specified for complete helmets or parts thereof, and may be referenced in the appropriate helmet standards.

Performance requirements are given in the appropriate helmet standard, as are such prerequisites as the number of samples, preconditioning, preparation of samples for the tests, sequence and duration of testing and assessment of test results. If deviations from the test method given in this standard are necessary, these deviations will be specified in the appropriate helmet standard.