

SVENSK STANDARD

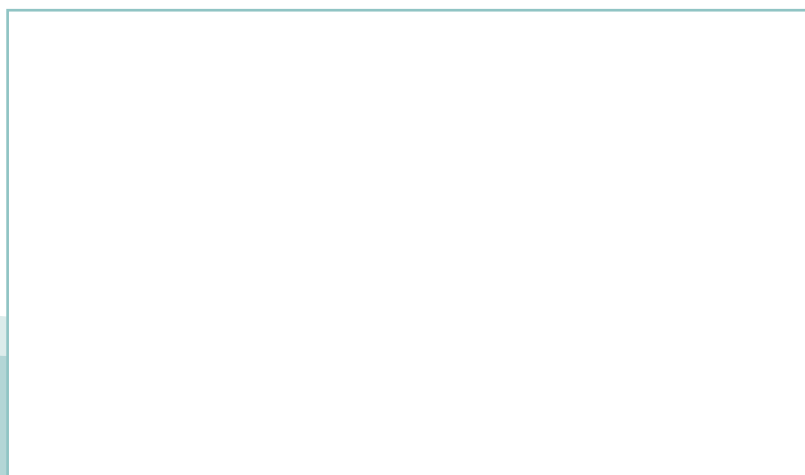
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Protective footwear for motorcycle riders – Requirements and test methods



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Europastandarden EN 13634:2010 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 13634:2010.

Denna standard ersätter SS-EN 13634, utgåva 1.

The European Standard EN 13634:2010 has the status of a Swedish Standard. This document contains the official version of EN 13634:2010.

This standard supersedes the Swedish Standard SS-EN 13634, edition 1.

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EUROPEAN STANDARD

EN 13634

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2010

ICS 13.340.50

Supersedes EN 13634:2002

English Version

Protective footwear for motorcycle riders - Requirements and test methods

Chaussures de protection des motocyclistes - Exigences et méthodes d'essai

Schutzschuhe für Motorradfahrer - Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 6 November 2010.

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.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 13634:2010) has been prepared by Technical Committee CEN/TC 161 "Foot and leg protectors", 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 June 2011, and conflicting national standards shall be withdrawn at the latest by June 2011.

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 13634:2002.

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.

This document is a revision of EN 13634:2002, which was prepared by CEN/TC162.

Annex A is normative. Annex B is informative.

The following significant technical changes have been introduced in comparison with the former edition EN 13634:2002:

- a) The title and scope have been modified; the scope is not any more limited to professional motorcycle riders;
- b) Two distinct performance levels have been introduced;
- c) Definitions for protective layer and professional rider were deleted;
- d) Minimum number of samples and test specimens and their origin specified;
- e) Height of upper specified depending on the footwear size;
- f) Design requirements for seams specified more precisely in Figure 1;
- g) Basic requirements for insoles and insocks specified in more detail;
- h) Requirement added for CrVI content of leather in upper and lining;
- i) Abrasion resistance requirement modified for upper, linings and insoles and insocks;
- j) Impact zones and material areas for upper resistance to impact cut specified;
- k) Requirement and test method for impact cut resistance modified;
- l) Optional requirement for slip resistance of outsole included;
- m) Optional requirement for permeable uppers included;
- n) Marking requirements modified;

- o) Informative annex on uncertainties of measurement added;
- p) With regards to pH requirements of leather materials, the minimum acceptable threshold had been lowered from 3.5 to 3.2 (hence "easier to pass");
- q) Transverse rigidity assessment of the whole footwear was changed introducing an "easier" level 1 requirement of 1,0 KN (at 20 mm compression), whilst keeping the previous requirement of 1,5 KN for the level 2 performance.

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 and the United Kingdom.

Introduction

Motorcyclists' footwear is intended to give a degree of mechanical protection to the foot and ankle in accidents without significantly reducing the ability of the rider to control the motorcycle and operate the foot controls. The particular hazards in motorcycle accidents are abrasion with the road surface plus impacts with the motorcycle, conflicting vehicles, road furniture and road surfaces. Road surface injuries are worse when the foot is trapped under the motorcycle during sliding impacts. The standard sets out a number of basic requirements considered essential for this type of footwear including a number of ergonomic requirements.

For a number of tests, this European standard includes two performance levels in terms of the protection afforded. The degree of risk or hazard that a motorcyclist will face is closely linked to the type of riding and the nature of the accident. Within standard EN 13634:2010 'Level 1' performance is deemed as the minimum level required so that the footwear provides useful protection in an accident, and offers footwear with an optimum comfort level to suit all riding types. Where riders feel that their riding style or sport exposes them to an increased accident risk 'Level 2' has been provided, which offers increased performance — however it is likely that this additional level of protection has an increased penalty for the weight and comfort so may not be acceptable to all riders.

1 Scope

This European Standard applies to protective footwear for motorcycle riders for use while riding motorcycles for on or off road activities. It specifies the requirements for protection, ergonomic characteristics, innocuousness, mechanical properties, marking and information for users. It also describes the appropriate test methods.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 1621-1:1997, *Motorcyclists' protective clothing against mechanical impact — Part 1: Requirements and test methods for impact protectors*

EN 13595-2, *Protective clothing for professional motorcycle riders — Jackets, trousers and one-piece or divided suits — Part 2: Test method for determination of impact abrasion resistance*

EN 13595-4, *Protective clothing for professional motorcycle riders — Jackets, trousers and one-piece or divided suits — Part 4: Test method for determination of impact cut resistance*

EN ISO 4045, *Leather — Chemical tests — Determination of pH (ISO 4045:2008)*

EN ISO 11642, *Leather — Tests for colour fastness — Colour fastness to water (ISO 11642:1993)*

EN ISO 17075:2007, *Leather — Chemical tests — Determination of chromium(VI) content (ISO 17075:2007)*

EN ISO 20344:2004, *Personal protective equipment — Test methods for footwear (ISO 20344:2004)*

EN ISO 20345:2004¹⁾, *Personal protective equipment — Safety footwear (ISO 20345:2004)*

ISO 4649:2010, *Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device*

ISO 5423:1992, *Moulded plastics footwear — Lined or unlined polyurethane boots for general industrial use — Specification*

3 Terms and definitions

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

3.1

zone of specific protection

zone of protection

area of footwear that is intended to provide additional specific protection, and is subject to specific testing

1) EN ISO 20345:2004 is impacted by the stand-alone amendment EN ISO 20345:2004/A1:2007.