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BS EN 1621-2:2014



BSI Standards Publication

Motorcyclists' protective clothing against mechanical impact

Part 2: Motorcyclists' back protectors — Requirements and test methods

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This British Standard is the UK implementation of EN 1621-2:2014. It supersedes BS EN 1621-2:2003 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PH/3/9, Motorcyclists Personal Protective Equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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ISBN 978 0 580 77774 5

ICS 13.340.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 28 February 2014.

Amendments issued since publication

Date	Text affected

EUROPEAN STANDARD **EN 1621-2**

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EUROPÄISCHE NORM

January 2014

ICS 13.340.10

Supersedes EN 1621-2:2003

English Version

Motorcyclists' protective clothing against mechanical impact - Part 2: Motorcyclists' back protectors - Requirements and test methods

Vêtements de protection contre les chocs mécaniques pour motocyclistes - Partie 2 : Protecteurs dorsaux - Exigences et méthodes d'essai

Motorradfahrer-Schutzkleidung gegen mechanische Belastung - Teil 2: Rückenprotektoren - Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 26 October 2013.

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Foreword

This document (EN 1621-2:2014) has been prepared by Technical Committee CEN/TC 162 “Protective clothing including hand and arm protection and lifejackets”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by July 2014, and conflicting national standards shall be withdrawn at the latest by July 2014.

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 1621-2:2003.

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 89/686/EEC, see informative Annex ZA, which is an integral part of this document.

The main technical changes with respect to the 2003 edition are listed below:

— a new shape of protector has been added, the central back protector;

— requirements concerning innocuousness have been added;

— requirements concerning the wet impact test (mandatory) and the high and low temperature impact tests (optional) have been added;

— the waist to shoulder length shall be specified as a range.

EN 1621 consists of the following parts, under the general title *Motorcyclists’ protective clothing against mechanical impact*:

— *Part 1: Motorcyclists' limb joint impact protectors — Requirements and test methods*

— *Part 2: Motorcyclists' back protectors — Requirements and test methods* (the present document)

— *Part 3: Requirements and test methods for chest protectors*[1)]

— *Part 4: Motorcyclists' inflatable protectors — Requirements and test methods*

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, 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.

1) Under development.

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Introduction

Motorcyclist’s back protectors are devices worn within or on top of other protective clothing, covering at least a portion of the back as corresponding to one of the three shapes of protectors described in the standard.

The performance requirements have been chosen as a best practical compromise between protection, comfort, and ergonomic requirements. Protectors that are too stiff or heavy will not be worn. The test methods are designed to provide information on protection against impacts against edges such as kerb stones. The force levels in the tests do not compare directly with the forces to which riders are exposed in accidents, but experiences have shown that products meeting the requirements of this European Standard reduce the incidence and severity of injuries.

This standard accommodates three different typologies of back protector, which are offered to encourage the adoption of certified protection within the different disciplines of motorcycling and the type of rider. These are namely full back, central back and lower back (lumbar) protector, the definition of which are provided in Clause 3.

Two performance levels are specified for motorcyclist's back protectors against impacts. These are level 1 for protectors designed to give protection whilst having low ergonomic penalties associated with its use and level 2 for protectors providing an increased protection with respect to level 1. There may be, however, weight and restriction penalties associated with level 2 protection.

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1 Scope

This European Standard specifies the minimum coverage to be provided by motorcyclists' back protectors worn by riders in normal traffic situations. The standard contains the requirements for the performance of the protectors under impact and details of the test methods. Requirements for sizing, ergonomic requirements, and requirements for innocuousness, labelling and the provision of information are included.

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 1621-1, *Motorcyclists' protective clothing against mechanical impact - Part 1: Motorcyclists' limb joint impact protectors - Requirements and test methods*

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
full back protector
FB
protective device worn on the back intended to reduce the severity of injuries caused by impacts to the central back and scapula area

3.2
central back protector
CB
protective device worn on the back intended to reduce the severity of injuries caused by impacts to central back area

3.3
lower back protector
lumbar protector
LB
protective device worn on the back intended to reduce the severity of injuries caused by impacts to the lumbar region

3.4
zone of protection
specific area of the protective device that is intended to provide protection

3.5
waist to shoulder length
length measured on the back from the waist line to the junction of the shoulder to the neck at the highest point (see Figure 1)

Note 1 to entry: The sizing system of back protectors is based on the user's waist to shoulder length, as no consistent relationship to the body height exists. The dimension is intended to be measured on the body with a tape measure.