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BS EN 1621-1:2012



BSI Standards Publication

Motorcyclists' protective clothing against mechanical impact

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

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This British Standard is the UK implementation of EN 1621-1:2012. It supersedes BS EN 1621-1:1998 which is withdrawn.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.

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Motorradfahrer-Schutzkleidung gegen mechanische Belastung - Teil 1: Gelenkprotektoren für Motorradfahrer - Anforderungen und Prüfverfahren

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Contents

Page

Foreword **3**

Introduction **4**

1 Scope **5**

2 Normative references **5**

3 Terms and definitions **5**

4 Zones of protection and protectors **6**

5 Requirements **6**
5.1 General **6**
5.2 Innocuousness **6**
5.3 Minimum dimensions of zone of protection **6**
5.4 Impact attenuation **7**
5.5 Ergonomic requirements **8**

6 Test methods and equipment **8**
6.1 General **8**
6.2 Innocuousness **8**
6.3 Impact attenuation **8**
6.3.1 Equipment **8**
6.3.2 Sampling **10**
6.3.3 Positioning of the sample **11**
6.3.4 Impact Tests **11**
6.4 Ergonomic assessment **12**
6.5 Procedure **12**
6.6 Expression of test results **13**
6.7 Test report **13**

7 Marking **13**

8 Information supplied by the manufacturer **14**

Annex ZA (informative) **Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC** **16**

Figures

Figure 1 — Definition of the zone of protection by three key dimensions 7

Figure 2 — Anvil 9

Figure 3 — Template with indication of the test areas 10

Figure 4 — Example of marking of a protector according to Clause 7, list entry d) 14

Tables

Table 1 — Minimum dimensions of zone of protection 7

Table 2 — Transmitted force and performance levels 7

Table 3 — Minimum number of samples and impacts required 11

Table ZA.1 — Correspondence between this European Standard and Directive 89/686/EEC 16

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Foreword

This document (EN 1621-1:2012) 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 June 2013, and conflicting national standards shall be withdrawn at the latest by June 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 supersedes EN 1621-1:1997.

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.

The main technical changes with respect to the 1997 edition are listed below:

a) the scope has been restricted only to limb joint impact protectors;

b) requirements concerning innocuousness have been added;

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

d) ergonomic requirements have been added.

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* (the present document)

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

— *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 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.

1) Under development.

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Introduction

This European Standard is Part 1 of a standard containing requirements and test methods for motorcycle riders' impact protectors. Impact protectors meeting the requirements of this European Standard will provide some protection against injury caused by impacts with road surfaces in motorcycle accidents. They may also slightly reduce the injuries caused by impacts with objects such as other vehicles.

In order to encourage the adoption of certified protection by the highest possible number of users, two performance levels are specified for protectors. 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 requirements and test methods for limb joint impact protectors incorporated or intended to be incorporated into motorcycle riders' clothing or used as separate items.

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 340, *Protective clothing — General requirements*

EN ISO 105-E01, *Textiles — Tests for colour fastness — Part E01: Colour fastness to water (ISO 105-E01)*

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

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
zone of protection
specific area of the protective equipment that is intended to provide protection to a part of the body and which is subject to specific testing

3.2
protector
arrangement of energy absorbing and/or impact spreading materials designed to offer some protection to the zones of protection

3.3
type A protector
protectors of smaller dimension; these are more commonly (although not exclusively) optimised for use with smaller riders

3.4
type B protector
protectors of larger dimension; these are more commonly (although not exclusively) optimised for use with larger riders

3.5
test area
area on which impact tests are performed; size and shape are defined by the template

3.6
template
auxiliary tool made of flexible material used to verify the minimum area of protection