ILNAS

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

ILNAS-EN 17092-1:2020

Protective garments for motorcycle riders - Part 1: Test methods

Vêtements de protection pour les motocyclistes - Partie 1 : Méthodes d'essai

Motorradfahrerschutzkleidung - Teil 1: Prüfverfahren

03/2020

National Foreword

This European Standard EN 17092-1:2020 was adopted as Luxembourgish Standard ILNAS-EN 17092-1:2020.

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

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 17092-1

March 2020

ICS 13.340.10

Supersedes EN 13595-1:2002, EN 13595-2:2002, EN 13595-3:2002, EN 13595-4:2002

English Version

Protective garments for motorcycle riders - Part 1: Test methods

Vêtements de protection pour les motocyclistes - Partie 1 : Méthodes d'essai

Motorradfahrerschutzkleidung - Teil 1: Prüfmethoden

This European Standard was approved by CEN on 25 November 2019.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN 17092-1:2020 E

Contents

Page

European foreword

This document (EN 17092-1:2020) 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 September 2020, and conflicting national standards shall be withdrawn at the latest by March 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document, together with EN 17092-2:2020, EN 17092-3:2020, EN 17092-4:2020, 17092-5:2020 and EN 17092-6:2020, supersedes EN 13595-4:2002, EN 13595-3:2002, EN 13595-2:2002 and EN 13595-1:2002.

This standard is part of a series of standards specifying test methods and requirements for motorcyclists’ protective garments. EN 17092 comprises multiple parts:

— *Part 1: Test methods*

— *Part 2: Class AAA garments — Requirements*

— *Part 3: Class AA garments — Requirements*

— *Part 4: Class A garments — Requirements*

— *Part 5: Class B garments — Requirements*

— *Part 6: Class C garments — Requirements*

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document is a part of a series of standards including EN 17092-2, EN 17092-3, EN 17092-4, EN 17092-5 and EN 17092-6, which describe the requirements for motorcyclists' protective garments according to the various classes of protection offered. EN 17092-1 specifies test methods to be used to test motorcyclists' protective garments to confirm that they meet the requirements of the EN 17092-2 and following parts.

1 Scope

This document describes some of the test methods for use with EN 17092 protective garments for motorcycle riders (Part 2 and following parts). It describes the appropriate test methods for zoning, ergonomics, mechanical properties and impact abrasion resistance.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 388:2016+A1:2018, *Protective gloves against mechanical risks*

EN 1621-1:2012, *Motorcyclists' protective clothing against mechanical impact — Part 1: Motorcyclists' limb joint impact protectors — Requirements and test methods*

EN 1621-2:2014, *Motorcyclists' protective clothing against mechanical impact — Part 2: Motorcyclists' back protectors — Requirements and test methods*

EN 1621-3:2018, *Motorcyclists' protective clothing against mechanical impact — Part 3: Motorcyclists' chest protectors — Requirements and test methods*

EN 1621-4:2013, *Motorcyclists' protective clothing against mechanical impact — Part 4: Motorcyclists' inflatable protectors — Requirements and test methods*

EN 13594:2015, *Protective gloves for motorcycle riders — Requirements and test methods*

EN ISO 3377-1:2011, *Leather — Physical and mechanical tests - Determination of tear load — Part 1: Single edge tear (ISO 3377-1:2011)*

EN ISO 4674-1:2016, *Rubber- or plastics-coated fabrics — Determination of tear resistance — Part 1: Constant rate of tear methods (ISO 4674-1:2016)*

EN ISO 5077:2008, *Textiles — Determination of dimensional change in washing and drying (ISO 5077:2007)*

EN ISO 13688:2013, *Protective clothing — General requirements (ISO 13688:2013)*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
garment
jacket or trouser separate, one-piece or two-piece suit, impact protector ensemble clothing, and other protective motorcycle rider clothing types excluding protective motorcycle rider clothing for the head, neck, hands, or feet

3.2
waistline
line in the horizontal plane of the waist, at the level of the highest points of the iliac crests on a subject standing upright

3.3
beltline
line in a horizontal plane, at the level of the bottom seam, or 4 cm down from the top of the waistband, at the centre front of the trousers on a subject standing upright

3.4
loop restraint
mechanism whereby a loop of material attached to or a part of a garment limb passes around a digit of the hand

3.5
rotor
complete assembly, which spins in a clockwise rotation, comprised of the 3 arms of the sample carrier and the 3 arms of the mass carrier, also including the axle and optionally the electric motor

3.6
sample carrier
three arms of the rotor, on which the sample holders are mounted

3.7
mass carrier
three additional arms, containing the masses needed to adjust the required total rotational mass inertia of the rotor

3.8
time to stop
time between the release of the rotor and the end of the sliding of the samples on the concrete tile

3.9
distance to stop
calculated rotational distance travelled by the sample carriers, between the release of the rotor and the end of the sliding of the samples on the concrete tile

3.10
structural strong layer(s)
SSL
layer of material or combination of layers of materials that confer the mechanical properties on a garment that allows it to resist damage and mechanical stress and thereby provide protection in an accident. The layer or layers may be of leather, fabric, or other materials individually or in combination and may or may not include the outermost layer

3.11
hole
break in a test sample, in any dimension, caused by abrasion

Note 1 to entry: see 5.4.5.3.