



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

**ILNAS-EN 17406:2020**

## **Classification for bicycles usage**

Classification pour l'utilisation des  
bicyclettes

Gebrauchsklassifizierung von Fahrrädern

**05/2020**



## National Foreword

This European Standard EN 17406:2020 was adopted as Luxembourgish Standard ILNAS-EN 17406:2020.

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>

### **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!

ILNAS-EN 17406:2020

EUROPEAN STANDARD **EN 17406**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2020

---

ICS 43.150

English Version

## Classification for bicycles usage

Classification pour l'utilisation des bicyclettes

Gebrauchsklassifizierung von Fahrrädern

This European Standard was approved by CEN on 7 March 2020.

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**

---

## Contents

Page

European foreword.....	3
1 Scope .....	4
2 Normative references .....	4
3 Terms and definitions .....	4
4 Basis of classification – Conditions and type of bicycles .....	4
5 Labelling .....	7
6 Durability test.....	14
6.1 Requirement .....	14
6.2 Test method .....	14
7 Information to be supplied by the manufacturer .....	14
Annex A (informative) Pictograms for classification of bicycles in vector file .....	15
Bibliography .....	16

## European foreword

This document (EN 17406:2020) has been prepared by Technical Committee CEN/TC 333 “Cycles”, the secretariat of which is held by UNI.

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 November 2020, and conflicting national standards shall be withdrawn at the latest by November 2020.

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.

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.

## 1 Scope

This document defines a classification of bicycle usage conditions and it provides a method of identifying bicycles and components for use within this system.

This classification gives a uniform set of usage definitions within the bicycle industry and it includes a set of graphical indicators to provide retailers and consumers with an indication of the intended use of a particular bicycle or aftermarket components.

## 2 Normative references

There are no normative references in this document.

## 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 <https://www.iso.org/obp/ui>

### 3.1 electrically power assisted cycle EPAC

cycle, equipped with pedals and an auxiliary electric motor, which cannot be propelled exclusively by means of this auxiliary electric motor, except in the start-up assistance mode

[SOURCE: EN 15194:2017, 3.3]

## 4 Basis of classification – Conditions and type of bicycles

The conditions of use and the type of bicycles are shown in Table 1.

**Table 1 — Conditions and type of bicycles**

Conditions	1	2	3	4	5	6
<b>Description</b> <div>ILNAS-EN 17406:2020 - Preview only Copy via ILNAS e-Shop</div>	Applies to bicycles and EPACs used on regular paved surfaces where the tyres are intended to maintain ground contact at average speed with occasional drop.	Applies to bicycles and EPACs and includes Condition 1 as well as unpaved and gravel roads and trails with moderate gradients. In this set of conditions, contact with irregular terrain and repeated tyre contact with the ground may occur. Drops are intended to be limited to 15 cm or less.	Applies to bicycles and EPACs and includes Condition 1 and Condition 2 as well as rough trails, rough unpaved roads, and rough terrain and unimproved trails that require technical skills. Jumps and drops are intended to be less than 60 cm.	Applies to bicycles and EPACs and includes Condition 1, 2, and 3, or downhill gradients on rough trails at speeds less than 40 km/h, or both. Jumps are intended to be less than 120 cm.	Applies to bicycles and EPACs and includes Condition 1, 2, 3, and 4; extreme jumping; or downhill gradients on rough trails at speeds in excess of 40 km/h; or a combination thereof.	Applies to bicycles and EPACs and includes Condition 1, to be used in competition or otherwise at high speed in excess of 50 km/h such as when descending or sprinting.
<b>Typical average speed range</b> km/h	15 to 25	15 to 25	Not relevant	Not relevant	Not relevant	30 to 55
<b>Intended drop/jump height</b> cm	< 15	< 15	< 60	< 120	> 120	< 15

Conditions	1	2	3	4	5	6
<b>Intended riding purpose</b>	Commuting and leisure with moderate effort	Leisure and trekking with moderate effort	Sportive and competitive with moderately challenging technical trail features	Sportive and competitive with highly challenging technical trail features	Extreme sports	Sportive and competitive with intensive effort
<b>Type of bicycle (examples)</b>	City and urban bikes	Trekking bike, travel bike	Cross country and marathon	All mountain, trail	Downhill, dirt jump, freeride	Road racing, time trial, triathlon
<b>Recommended riding skills</b>	No specific riding skills required	No specific riding skills required	This requires technical skills and practice	This requires technical skills, practice and good riding control	Extreme technical skills, practice and riding control	This requires technical skills and practice

NOTE At the time of publication some but not all of these types of bicycle are covered by the EN ISO 4210 series. It remains the responsibility of the manufacturer to decide which testing requirements are appropriate for any particular model.