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EUROPEAN STANDARD

EN 17406

NORME EUROPÉENNE

EUROPÄISCHE NORM

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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.

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

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

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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of an identical text or by endorsement, at the latest by November 2020, and conflicting national standards shall be withdrawn at the latest by November 2020.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.

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EN 17406:2020 (E)**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]

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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
Description	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. SIST EN 17406:2020	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.
Typical average speed range km/h	15 to 25	15 to 25	Not relevant	Not relevant	Not relevant	30 to 55
Intended drop/jump height cm	< 15	< 15	< 60	< 120	> 120	< 15

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Conditions	1	2	3	4	5	6
Intended riding purpose	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
Type of bicycle (examples)	City and urban bikes	Trekking bike, travel bike	Cross country and marathon	All mountain, trail	Downhill, dirt jump, freeride	Road racing, time trial, triathlon
Recommended riding skills	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.

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5 Labelling

Bicycle frames shall bear a permanent representation of the graphical indicator that describes the appropriate use condition. This representation is a label made by one of the pictograms shown in Figures 1 to 6.

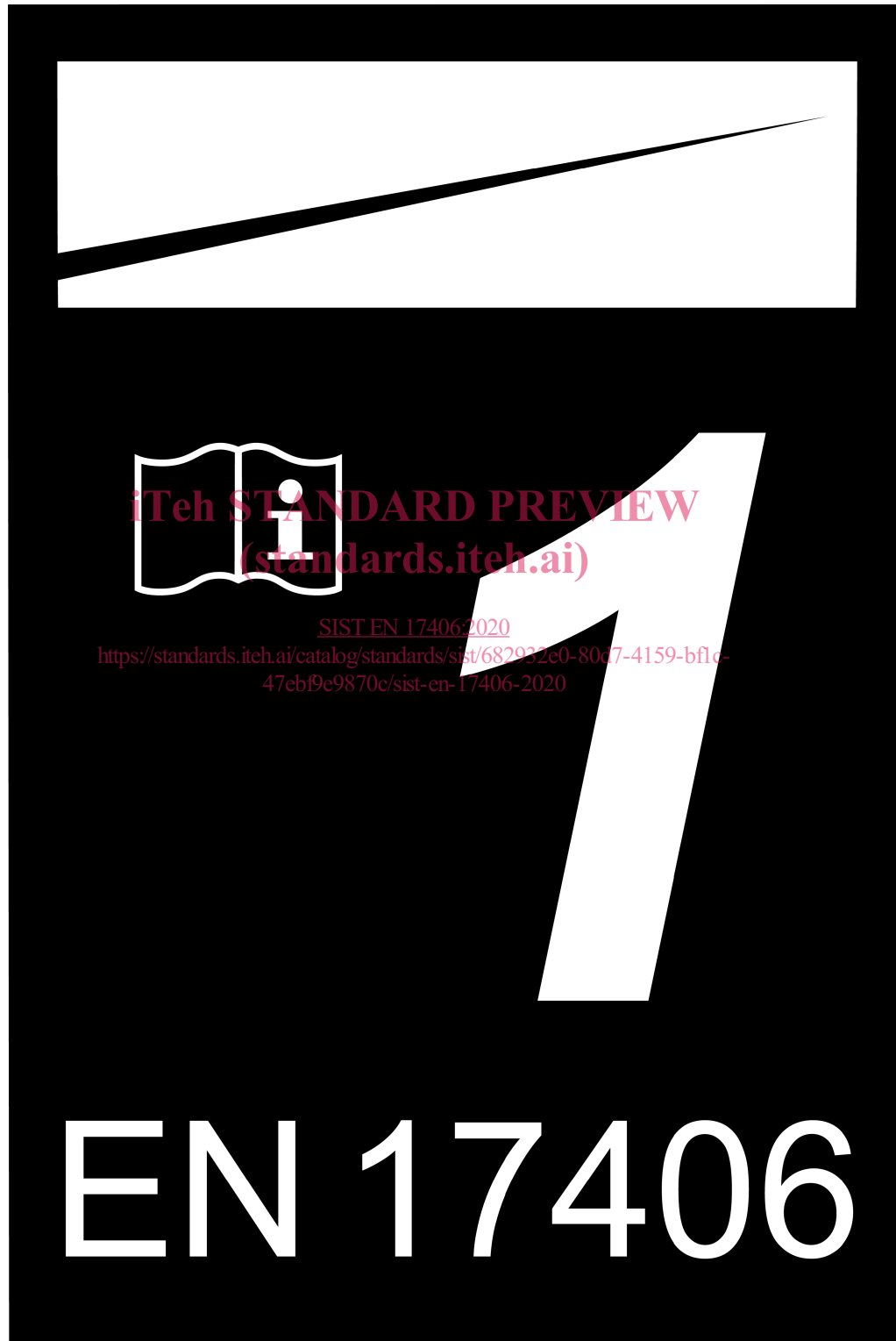


Figure 1 — Label to describe condition 1