



**SLOVENSKI STANDARD**  
**SIST EN 14619:2005**

**01-junij-2005**

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Roller sports equipment - Kick scooters - Safety requirements and test methods

Rollsportgeräte - Kick-Scooter - Sicherheitstechnische Anforderungen und Prüfverfahren

Équipement de sports a roulettes - Trottinettes - Exigences de sécurité et méthodes  
d'essai

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**Ta slovenski standard je istoveten z: EN 14619:2004**

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**ICS:**

97.220.40	Oprema za športe na prostem in vodne športe	Outdoor and water sports equipment
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**en**

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EUROPEAN STANDARD

EN 14619

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2004

ICS 97.220.40

English version

## Roller sports equipment - Kick scooters - Safety requirements and test methods

Équipement de sports à roulettes - Trotinettes - Exigences  
de sécurité et méthodes d'essais

Rollsportgeräte - Kick-Scooter - Sicherheitstechnische  
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 15 November 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 14619:2004) has been prepared by CEN/TC 136, "Sports, playground and other recreational equipment", 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 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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**EN 14619:2004 (E)****1 Scope**

This document applies to kick scooters which can only be propelled by the muscular activity of a user with a body mass of more than 35 kg and less than 100 kg.

It specifies safety requirements, test methods, marking and information supplied by the manufacturer to reduce the risk of injuries to both third parties and the user during normal use.

Kick scooters for use by users of less than 35 kg do not belong to the scope of this document. They are toys.

**2 Normative references**

The following referenced documents are indispensable for the application 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 22768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1:1989)*.

**3 Terms and definitions**

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

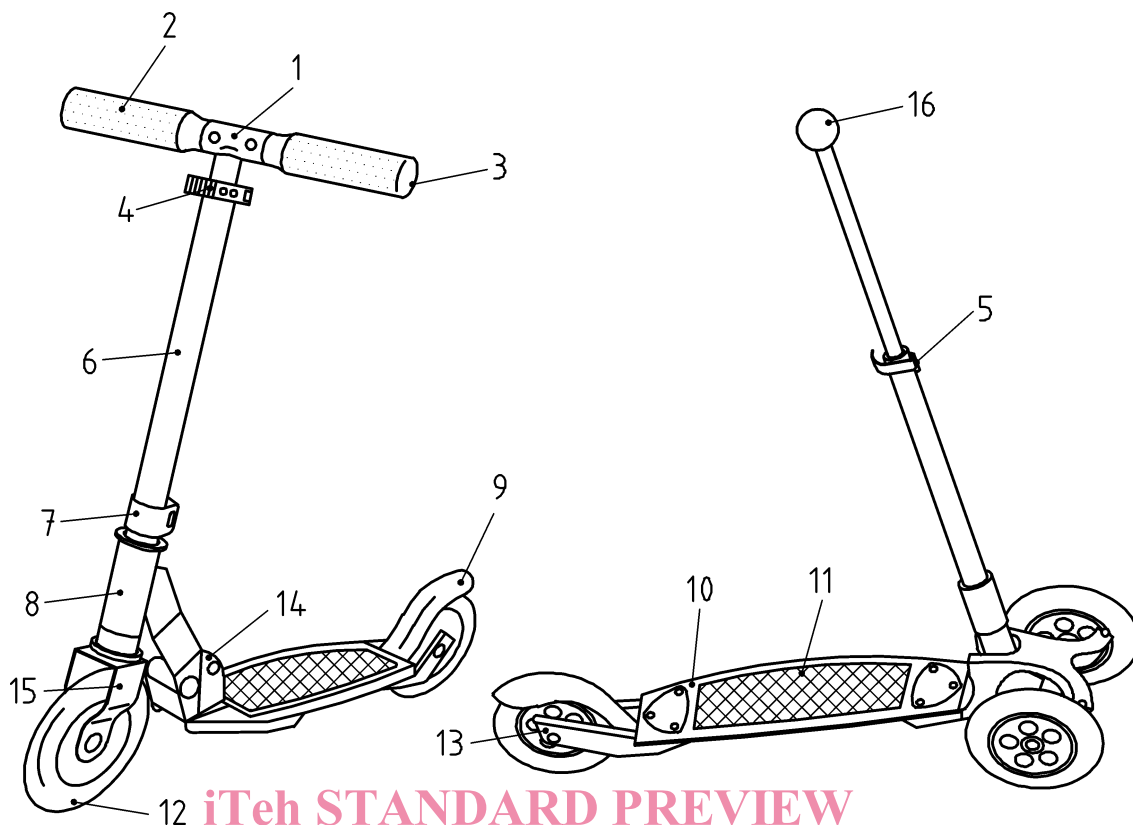
- 3.1 kick scooter**  
ride-on equipment comprising at least one deck, at least two wheels of any size, a vertical element to grasp and a mechanism for steering, intended for flat, clean and dry surfaces
- 3.2 sliding mechanism**  
sliding components that may be used to vary the height of the steering column or the length of the deck

**4 Construction****4.1 General**

General tolerances: EN 22768-1 — v

Typical components of kick scooters are illustrated in Figure 1.

NOTE Figure 1 shows only examples for reference.



a)

b)

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**Key**

- 1 handlebar
- 2 hand grip
- 3 plug
- 4 clamp
- 5 spring clip
- 6 steering column
- 7 steering bearing
- 8 head tube

- 9 brake
- 10 deck
- 11 deck grip
- 12 wheel
- 13 axle
- 14 folding mechanism
- 15 fork
- 16 joy stick

- a) Example 1
- b) Example 2

**Figure 1 — Typical components of kick scooters**

## 4.2 Requirements

### 4.2.1 Protruding components and edges

All protruding components and edges on the kick scooter that can come into contact with body parts during normal use shall be deburred or constructed in such a way as prevent injury. Testing according to 5.8.

Rigid and protruding parts that may cause entrapment or injuries shall be protected. This protection shall not come loose during tests performed in Clause 5.

**EN 14619:2004 (E)****4.2.2 Parts moving against each other****4.2.2.1 General**

The requirements specified in 4.2.2.2 to 4.2.2.5 have to be tested according to 5.8.

**4.2.2.2 Distance between the parts**

The distance between accessible moveable parts shall be either smaller than 5 mm or wider than 18 mm in any position. This requirement does not apply to the wheels/wheel support system or the braking/rear brake system, if provided.

**4.2.2.3 Folding mechanism**

Any folding mechanism shall be designed to fix the kick scooter for use in a simple, rigid and safe way. It shall resist all tests without damage. Fixing components should not have contact with front wheel in any position. An inadvertent unlocking of the mechanism shall be impossible.

If the distance as specified in 4.2.2.2 is not met other designs to protect the user from unintentional injuries shall be provided.

**4.2.2.4 Sliding mechanism**

Sliding mechanisms shall be protected against unintentional opening or collapse.

**4.2.2.5 Springs**

Springs shall not be accessible if the gap between two consecutive spirals or turns allow a 5 mm diameter rod to be insert on a 10 mm depth.

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**4.2.3 Steering system**

The steering system shall be constructed:

- a) to avoid contact between wheels and other parts of the kick scooter;
- b) that the length adjustment fixing avoid unintentional opening;
- c) that the steering column, if it is sliding, shall be adjusted for height, and have a permanent mark that indicates the minimum insertion depth of the column; this mark shall be positioned at a distance equivalent to and not less than two and a half times the diameter of the column and shall not affect its strength;
- d) that the end of the handlebar is equipped with hand grips or plugs, which withstand a tensile load of at least 70 N.

When tested according to Clause 5 there shall be no break or functional damage of the steering system.

**4.2.4 Deck**

The deck shall resist all tests specified in Clause 5 without any functional damage. It shall be equipped with an anti-slide surface with an area of at least 200 cm<sup>2</sup>.



#### 4.2.5 Bearings

The bearings shall be designed in such a way as to be functional after performing all the tests according to Clause 5. They shall be constructed in such a way as to permit servicing according to the information supplied by the manufacturer without impairment of their operational safety.

#### 4.2.6 Axles

The axles shall be attached and designed in such a way as to ensure that they cannot become loose, displaced or deformed during use. The wheels shall be secured on the axles against unintentional loosening. These requirements are considered to be fulfilled if the axles are not loosened, deformed or displaced to such an extent as to impair proper functioning, and the wheels have not become loose after the tests according to Clause 5.

#### 4.2.7 Wheels

The wheels shall be constructed from non-slip material. This requirement is considered to be fulfilled if a coefficient of adhesion  $\mu_0$  of at least 0,30 is achieved in the test according to 5.3.

After the tests according to Clause 5, the wheels shall not show tearing. They shall further not have loosened or be deformed to the extent that a risk of their becoming locked exists.

If a rear wheel and its axle differ from those at the front they shall be tested according to 5.7.

#### 4.2.8 Self-locking fixings

Where self-locking nuts are used, the entire thread, including the locking section, shall be in contact with the bolt. Self-locking nuts and other self-locking fixings that are loosened several times for the purpose of modification or servicing, shall be suitable for this purpose. The information supplied by the manufacturer shall indicate, when self-locking nuts and other self-locking elements can lose their effectiveness.

#### 4.2.9 Mechanism to reduce the speed

If a kick scooter is equipped with a mechanism to reduce the speed this mechanism shall continue to make contact with the surface to which it is intended and no fastening devices shall have loosened when tested according to Clause 5.

The mechanism shall effectively and smoothly reduce the speed without coming to an abrupt stop.

#### 4.2.10 Strength

All functional parts after testing according to Clause 5 shall not collapse or fail to comply with the relevant requirements specified in this document.

### 5 Test methods

#### 5.1 General

The kick scooter to be tested shall be assembled and adjusted according to the information supplied by the manufacturer.

Two test specimen (two kick scooters) of the same type shall be tested according to the order described in 5.2.