# Vodné kĺzačky Časť 1: Bezpečnostné požiadavky a skúšobné metódy STN EN 1069-1

Water slides - Part 1: Safety requirements and test methods

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/18

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# **EUROPEAN STANDARD** NORME EUROPÉENNE **EUROPÄISCHE NORM**

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#### **English Version**

# Water slides - Part 1: Safety requirements and test methods

Toboggans aquatiques - Partie 1: Exigences de sécurité et méthodes d'essai

Wasserrutschen - Teil 1: Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 14 May 2017.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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### **European foreword**

This document (EN 1069-1:2017) has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational facilities and 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of an identical text or by endorsement, at the latest by February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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 1069-1:2010.

EN 1069, Water slides, consists of the following parts:

- Part 1: Safety requirements and test methods
- Part 2: Instructions

In relation to EN 1069-1:2010 the following main amendments have been made:

- a) the document has been editorially revised;
- b) the definition water slide (3.3) and water level (3.13) have been revised;
- c) requirement for water slide Type 6.2 revised;
- d) under 5.6 "Electrical installations" a reference to HD 60364-7-702 has been added;
- e) values for Table 1 "Partial factors for Ultimate Limit combinations" and Table 2 "Partial factors for serviceability combinations" have been changed;
- f) new Table 3 "Partial factors for combinations of accidental actions" and Table 4 " Combination factors  $\psi_0$  and  $\psi_2$ " have been added;
- g) Figure 5 Stepladders for water slide access deleted and requirements for access to water slides (7.5) revised;
- h) Figure 6 replaced by Figure 3 of EN 13451-1:2011+A1:2016;
- i) an example for calculation has been added to 7.7.3 "Maximum acceleration on a sliding person";
- j) the value for X in Figure 8 "Cross section of Type 1" has been changed;
- k) Table 8 "Height of fall and water depth in splashdown area for type 1 and type 2" and Table 9 "Falling distance and water depth in a splashdown area for Types 3, 4, 6, 7, 8, 9 and 10" have been revised;
- l) Table 8 has been replaced by a graph (see Figure 15);

- m) values for water flow rate in 8.3 "Water flow" have been changed and Clause 8.3 moved to 7.12.2 Water flow rate;
- n) Requirements in 9.3.2 "Slide tester" have been changed;
- o) Figure A.1 and A.2 have been revised;
- p) values for type 4 in Table A.2 "Dimensions of splashdown area for Types 3 and 4" have been changed;
- q) values for type 6.2 in Table A.3 "Dimensions of splashdown area for Type 6" have been changed;
- r) Annex D is now informative and a subclause on a maximum speed measuring device was added (D.1.3).

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### Introduction

The market for water slides is extremely wide and specific and still developing. It is impossible to define an all-embracing safety specification, including dimensions and design requirements as required by a standard, without limiting the design possibilities and preventing innovative and new but safe products.

This European Standard is intended to establish safety requirements and design guidance rules to serve anyone involved with water slides, especially designers, manufacturers, operators and users, to ensure safe and more efficient products. Its basic approach is the consciousness that the sliding action usually implies for the users a higher risk level than using a pool. For certain aspects of design, manufacturing, installation, operation and use only specific guidelines, without any technical specification, are given, which should be taken into consideration and be fulfilled in order to ensure safety for operators and users.

#### 1 Scope

This European Standard is applicable to all water slides installed in swimming pools of public use.

This Standard specifies general safety requirements for water slides in swimming pools of public use and specific requirements for defined types of water slides. These specific safety requirements are also applicable to undefined types as far as possible.

These requirements concern safety and the technical rules for design, calculation and testing.

#### 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 1069-2:2017, Water slides — Part 2: Instructions

EN 1990, Eurocode - Basis of structural design

EN 1991-1-1, Eurocode 1: Actions on structures - Part 1-1: General actions - Densities, self-weight, imposed loads for buildings

EN 1991-1-3:2003, Eurocode 1 - Actions on structures - Part 1-3: General actions - Snow loads

EN 1991-1-4, Eurocode 1: Actions on structures - Part 1-4: General actions - Wind actions

EN 10088-1, Stainless steels - Part 1: List of stainless steels

EN 10088-2, Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes

EN 10204:2004, Metallic products - Types of inspection documents

EN 13451-1:2011+A1:2016, Swimming pool equipment - Part 1: General safety requirements and test methods

EN 13451-2, Swimming pool equipment - Part 2: Additional specific safety requirements and test methods for ladders, stepladders and handle bends

EN 13451-3, Swimming pool equipment — Part 3: Additional specific safety requirements and test methods for inlets and outlets and water/air based water leisure features

EN 15288-1:2008+A1:2010, Swimming pools - Part 1: Safety requirements for design

EN 15288-2, Swimming pools - Part 2: Safety requirements for operation

EN 22768-1, General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1)

EN ISO 9606-1, Qualification testing of welders - Fusion welding - Part 1: Steels (ISO 9606-1)

EN ISO 13857:2008, Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)

## EN 1069-1:2017 (E)

EN ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025)

koniec náhľadu – text ďalej pokračuje v platenej verzii STN