# SLOVENSKI STANDARD
# oSIST prEN 14528:2023

**01-februar-2023**

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**Bideji - Funkcionalne zahteve in preskusne metode**

Bidets - Functional requirements and test methods

Sitzwaschbecken - Funktionsanforderungen und Prüfverfahren



Bidets - Exigences fonctionnelles et méthodes d'essai

**Ta slovenski standard je istoveten z:** **prEN 14528**



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**ICS:**

| | | |
|---|---|---|
| 91.140.70 | Sanitarne naprave | Sanitary installations |

**oSIST prEN 14528:2023** **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# DRAFT
# prEN 14528

December 2022

ICS 91.140.70

Will supersede EN 14528:2015+A1:2018

English Version

# Bidets - Functional requirements and test methods

Bidets - Exigences fonctionnelles et méthodes d'essai

Sitzwaschbecken - Funktionsanforderungen und Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 163.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.



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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.



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

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Ref. No. prEN 14528:2022 E

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## European foreword

This document (prEN 14528:2022) has been prepared by Technical Committee CEN/TC 163 “Sanitary appliances”, the secretariat of which is held by UNI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 14528:2015+A1:2018.

In comparison with the previous edition, the following technical modifications have been made:

a) modifications of the scope for a better understanding;

b) modification and supplementation of chapter normative references;

c) supplementation of chapter terms and definitions by means of five abbreviations and one definition;

d) complete redrafting of chapter “Characteristics” according the necessity of 305/2011 (EU);

e) completely redrafting of chapter “Testing, assessment and sampling methods” to be in line with chapter “Characteristics”;

f) modification of chapter 6 to Annex ZA according the necessity of 305/2011 (EU).



This document has been prepared under a standardization request to CEN by the European Commission and the European Free Trade Association.

For relationship with EU Construction Products Regulation, see informative Annex ZA, which is an integral part of this document.

# 1 Scope

This document specifies essential characteristics and test methods for establishing constancy of performance for bidets used for domestic purpose to be used for personal hygiene and made from either ceramics or stainless steel.

Domestic purposes include use in hotels, accommodation for students, hospitals and similar buildings, except when special medical provisions are required.

Proper functioning of bidets can only be assumed when connected to a suitable drainage system (see EN 12056-2:2001 for more information). All drawings are examples only.

# 2 Normative references

There are no normative references in this document.

# 3 Terms, definitions and abbreviations

## 3.1 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 https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp



**3.1.1**
**bidet**
sanitary appliance for washing the genital area whilst seated



Note 1 to entry: See Figure 1 and Figure 2.

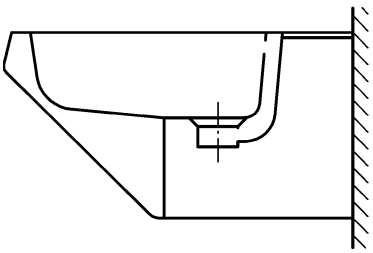


**Figure 1 — Wall-hung bidet**

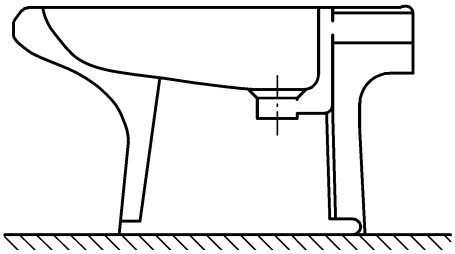


**Figure 2 — Pedestal bidet**

**3.1.2**
**functional surfaces**
areas of the bidet intended to or likely to come into contact with water during use

Note 1 to entry: Parts of the bidet with special function(s) are deemed to be excluded. Examples for areas with special functions are inlet and outlet holes, outlet grills and overflow protection provisions

**3.1.3**
**cleanability**
characteristic which allows the functional surfaces to be self-draining, visibly smooth, non-absorbent and free from unacceptable internal corners, such that they can be kept visibly free from dirt and/or stains after use when subject to a regular maintenance regime

Note 1 to entry: This may include, when appropriate, specific instructions for use and care, as specified by the manufacturer

## 3.2 Abbreviations

The following abbreviations can be used for marking (e.g. CE marking), independent of the language version of this document and the language of the market where the product will be placed.

| | |
|---|---|
| CA | Cleanability |
| CL | Capacity to overflow |
| LR | Load resistance |
| PH | Personal hygiene |



# 4 Characteristics



## 4.1 Cleanability

The functional surfaces of the bidet shall be tested in accordance with 5.2.

When tested in accordance with 5.2, bidets shall have smooth and readily cleansed non-absorbent functional surfaces which are free from acute internal corners which would be difficult to clean, i.e. surfaces intended to or likely to come into contact with water during use. Water inside the bowl of the bidet shall drain out through the plug hole.

The stagnation of water due to surface tension is permitted.

The results can be expressed as follows:

- Both of the above requirements are met CA

## 4.2 Load resistance

When tested in accordance with 5.3., wall-hung bidets shall withstand a force of (4,00 ± 0,1) kN without showing any evidence of cracking and/or permanent deformation.

The results can be expressed as follows:

- LR 4

## 4.3 Capacity to overflow

Bidets shall be tested in accordance with 5.4. in order to determinate the capacity of the overflow.

The performance shall be expressed by means of an overflow type dependent on the flow rate of the overflow. The type of overflow corresponds to the capacity of the overflow given in Table 1. When tested in accordance with 5.4, the flow rate of the overflow shall not be less than the values given in Table 1.

The results can be expressed in accordance with Table 1 “capacity level”:

- e.g: CL 25

The overflow can be either an integral overflow or an overflow device as specified by the manufacturer.

**Table 1 — Flow rates of the overflow**

| overflow rates l/s | Capacity Level |
|---|---|
| 0,25 | CL 25 |
| 0,20 | CL 20 |
| 0,15 | CL 15 |
| 0 | CL 00 |

Products without an overflow shall be classified with CL 00.

# 5 Testing, assessment and sampling methods

## 5.1 General



All tests shall be carried out on the same sample bidet.

Install the bidet to be tested on a firm flat horizontal or vertical surface as appropriate with a layer of mortar or other material to accommodate any unevenness in accordance with the manufacturer's installation instructions.



## 5.2 Determination of cleanability

**Test equipment:**

- Water coloured with eosin or any other colouring agent

  The concentration is about 0,1 g of eosin plus 0,1 g of standard (liquid) detergent per litre of water (a different concentration and/or a different colouring agent may be used, depending on the colour of the appliance, since the goal is to ensure a visual contrast with the appliance).

- Steel ball

  Use a steel ball (⌀ (15 ± 0,5) mm, and in narrow areas of the bidet a ⌀ (11 ± 0,5) mm ball may be used).

**Test procedure:**

- The bidet shall be made level on the mounting surface and in accordance with the manufacturer's instructions. Clean the sample with a cleaning product recommended by the manufacturer or a standard gentle detergent and a non-abrasive natural sponge. The purpose of this operation is to remove all residues from the appliance (demoulding agent, grease, dust, etc.).

- Rinse the product with clear water and wipe dry.

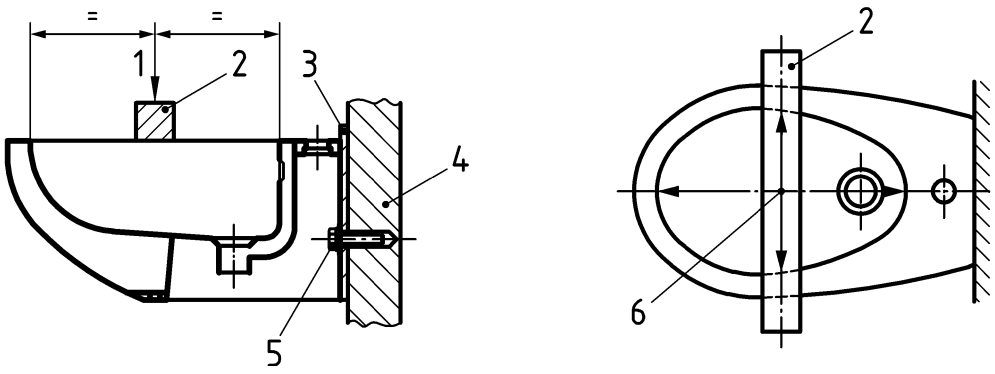
- Pour in a quantity of water (at least 1 L) coloured with eosin or any other colouring agent evenly around the upper inside edge of the bowl.
- Determine whether the water has completely drained out after 10 min.
- Visually examine whether the water actually drained out through the plug hole(s). The presence of stagnant water due to surface tension is permitted.
- If water remains on the appliance, then continue testing, using the steel ball.
- Mark the zone(s) to be checked, then wipe the product dry. Place the ball in an initial stable position. Observe the movement of the ball in multiple places of the marked zone(s).

**Interpreting the result:**

- If the ball rolls towards the drain → presence of a slope (therefore retained water is due to surface tension).
- If the ball does not roll towards the drain → water stagnation.

## 5.3 Determination of load resistance

- The bidet to be tested shall be fixed in accordance with the manufacturer's instruction onto a smooth surface with a layer of mortar or other facing material used for pointing between the back of the bidet and the smooth surface.
- Gradually apply a force of (4,00 ± 0,1) kN on top of a wooden beam with a cross section of 100 mm × 100 mm positioned across the geometric centre of the bowl of the bidet parallel to the wall (see Figure 3). Allow the force to remain in position for a period of 1 h.
- Record any failure to comply with 4.2. Any distortion at the points of direct loading shall not constitute a failure.




**a) Testing the wall-hung bidets – side view** **b) Testing the wall-hung bidets – top view**

**Key**

1 load up to (4,0 ± 0,1) kN

2 wooden beam with cross-section 100 mm × 100 mm of adequate length

3 compensation layer

4 wall

5 threaded rod, nut and flexible washer (maximum torque 5 Nm) or as specified by the manufacturer"

6 symmetric centre of bowl



**Figure 3 — Load test**



### 5.4 Determination of capacity to overflow



- The bidet shall be made level on the mounting surface and in accordance with the manufacturer's instructions.
- Close the waste-outlet hole(s).
- Introduce the water supply avoiding turbulence by means of a flexible tube with an inner diameter of 20 mm which leads to the bottom of the bowl. Adjust the quantity of the water supply in such a way that no water spills over the rim or the platform of the bidet, whichever is lowest.
- After the water has stabilized for 60 s then record the flow rate, by means of a flow meter fitted into the supply pipe.

## 6 Assessment and verification of constancy of performance – AVCP

### 6.1 General

The manufacturer shall always retain the overall control and shall have the necessary means to take responsibility for the conformity of the product with its declared performance(s).

The technical details necessary for the implementation of the system of assessment and verification of constancy of performance comprise provisions with regards to:

- the assessment of the performance of the construction product, which may be carried out on the basis of testing of the product; and
- the applicable factory production control.