

STN	Zdravotnotechnické armatúry Tlakové splachovače a automatické splachovače pre pisoáre PN 10	STN EN 12541 13 6510
------------	--	--

Sanitary tapware - Pressure flushing valves and automatic closing urinal valves PN 10

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. 06/26

Obsahuje: EN 12541:2026

Oznámením tejto normy sa ruší

STN EN 12541 (13 6510) z decembra 2003

142650

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2026

Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12541

April 2026

ICS 91.140.70

Supersedes EN 12541:2002

English Version

**Sanitary tapware - Pressure flushing valves and automatic
closing urinal valves PN 10**

Robinetterie sanitaire - Robinets de chasse d'eau et
d'urinoirs à fermeture hydraulique automatique PN 10

Sanitärarmaturen - WC- und Urinaldruckspüler mit
selbsttätigem Abschluss PN 10

This European Standard was approved by CEN on 2 March 2026.

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, Türkiye 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

EN 12541:2026 (E)**Contents**

Page

European foreword	4
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions and abbreviated terms	7
3.1 Terms and definitions	7
3.2 Abbreviated terms.....	8
4 Classification and designation	8
4.1 Classification of flushing valves.....	8
4.2 Classification of urinal valves.....	9
4.3 Designation	9
5 Marking	9
6 Coating of exposed surfaces	9
7 Dimensional characteristics	10
7.1 General comments on drawings	10
7.2 WC flushing valve.....	10
7.2.1 General.....	10
7.2.2 Side-entry WC flushing valves.....	11
7.2.3 Top-entry WC flushing valves.....	12
7.3 Urinal valves	12
7.3.1 General.....	12
7.3.2 Top entry urinal valve.....	13
7.3.3 Side-entry urinal valves.....	14
8 Leaktightness characteristics.....	14
8.1 General.....	14
8.2 Leaktightness tests.....	14
8.2.1 Test methods	14
8.2.2 Leaktightness of the stop valve and leaktightness of tapware upstream of the seat.....	15
8.2.3 Leaktightness of tapware downstream of the seat.....	15
8.3 Leaktightness tests - Summary table	16
9 Pressure resistance characteristics	16
9.1 General.....	16
9.2 Mechanical behaviour tests.....	16
9.2.1 Test methods	16
9.2.2 Mechanical behaviour upstream of the seat with the stop valve in the closed position.....	17
9.2.3 Mechanical behaviour downstream of the seat with the stop valve in the open position.....	17
9.3 Mechanical behaviour tests - Summary table.....	17
10 Hydraulic and flow characteristics of WC flushing valves	18
10.1 General.....	18
10.2 Test method for WC flushing valves.....	18
10.2.1 Principle	18
10.2.2 Test apparatus	18

10.2.3	Measurement of impact force and requirements	22
10.2.4	Fitting the WC flushing valve	23
10.3	Flow rate-time-volume test.....	24
10.3.1	General	24
10.3.2	Test methodology	25
10.3.3	Test apparatus	25
10.3.4	Test at lower dynamic pressure	25
10.3.5	Test at upper dynamic pressure	26
10.4	Summary of requirements	26
10.5	Measurement of water hammer	28
10.5.1	Test method.....	28
10.5.2	Requirements.....	28
11	Principle and verification of atmospheric pipe interrupters of WC flushing valves.....	28
11.1	General	28
11.2	Atmospheric pipe interrupter composition	28
11.2.1	General	28
11.2.2	Requirements.....	28
11.2.3	Measurement method of dry part.....	28
11.3	Installation conditions.....	29
11.4	Verification of absence of water splashes at backflow protection	30
11.4.1	Test method.....	30
11.4.2	Requirements.....	30
11.5	Verification of operation at vacuum	30
11.5.1	General	30
11.5.2	Test method.....	31
11.5.3	Requirements.....	31
12	Hydraulic or flow characteristics of urinal valves.....	31
12.1	General	31
12.2	Test method for urinal valves	31
12.2.1	Test apparatus	31
12.3	Requirements.....	32
13	Operating force.....	32
14	Mechanical endurance characteristics	32
14.1	General	32
14.2	WC flushing valves.....	32
14.2.1	Procedure	32
14.2.2	Minimum requirements.....	33
14.3	Urinal valves.....	33
14.3.1	Procedure	33
14.3.2	Minimum requirements.....	33
15	Acoustic characteristics	33
15.1	General	33
15.2	Procedure	34
15.2.1	Installation conditions and valve operation.....	34
15.2.2	Test method.....	34
15.3	Requirements.....	34
15.3.1	Expression of results	34
15.3.2	Determination of acoustic groups	34
	Bibliography	36

EN 12541:2026 (E)**European foreword**

This document (EN 12541:2026) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

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 October 2026, and conflicting national standards shall be withdrawn at the latest by October 2026.

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.

This document supersedes EN 12541:2002.

EN 12541:2026 includes the following significant technical changes with respect to EN 12541:2002:

- the document has been technically updated;
- the classifications for flushing and urinal valves have been updated;
- the 4 l flow rate was introduced.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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, Türkiye and the United Kingdom.

Introduction

As for possible unfavourable effects of the product to which this document applies on the quality of water for human consumption, no information is provided by this document on possible use restrictions of the product in any of the member states of the EU or the EFTA.

NOTE While awaiting the adoption of verifiable European criteria, attention is also drawn to existing national regulation that can apply.

EN 12541:2026 (E)**1 Scope**

This document is applicable to flushing valves for WCs and valves for urinals, with automatic hydraulic closure, intended for:

- WC pans EN 997;
- single flush urinals EN 13407;
- siphon acting urinals EN 13407.

It does not apply to no-contact detection valves.

It is intended to specify:

- marking and identification, physico-chemical, dimensional, leaktightness, pressure behaviour, hydraulic, mechanical endurance and acoustic characteristics of flushing valves for WCs and urinals with automatic closure;
- test methods used to verify these characteristics;
- and to determine requirements for the atmospheric interrupter which shall be an integral part of the WC flushing valve.

It is applicable in the following pressure and temperature conditions (see Table 1):

Table 1 — Conditions of use for tapware

Recommended dynamic pressure (<i>P</i>) range	Urinals WC DN15 WC DN20	$0,1 \text{ MPa} \leq P \leq 0,5 \text{ MPa}$ ($1 \text{ bar} \leq P \leq 5 \text{ bar}$)
	WC DN25	$0,08 \text{ MPa} \leq P \leq 0,25 \text{ MPa}$ ($0,8 \text{ bar} \leq P \leq 2,5 \text{ bar}$)
	WC DN32	$0,08 \text{ MPa} \leq P \leq 0,25 \text{ MPa}$ ($0,8 \text{ bar} \leq P \leq 2,5 \text{ bar}$)
Maximum static pressure		1 MPa (10 bar)
Water temperature		$\leq 25 \text{ }^{\circ}\text{C}$

NOTE Although this document limits the pressure for WC DN25 and WC DN32 valves till 0,25 MPa (2,5 bar), some European countries have legislation and recommendations for higher pressures.

Health and quality requirements in accordance to European and national legislation for final materials in contact with water intended for human consumption are not covered by this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 248, *Sanitary tapware — General specification for electrodeposited coatings of Ni-Cr*

EN 997, *WC pans and WC suites with integral trap*

EN 13407, *Wall-hung urinals — Functional requirements and test methods*

EN ISO 3822-1, *Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 1: Method of measurement (ISO 3822-1)*

EN ISO 3822-4, *Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 4: Mounting and operating conditions for special appliances (ISO 3822-4)*

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN