BS EN 14688:2015

BSI Standards Publication

Sanitary appliances — Wash basins — Functional requirements and test methods

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National foreword

This British Standard is the UK implementation of EN 14688:2015. It supersedes BS EN 14688:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/503, Sanitary appliances.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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This European Standard was approved by CEN on 19 June 2015.

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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 14688:2015) has been prepared by Technical Committee CEN/TC 163 “Sanitary appliances”, 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of an identical text or by endorsement, at the latest by January 2016 and conflicting national standards shall be withdrawn at the latest by April 2017.

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 14688:2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the EU Construction Products Regulation.

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

Since the latest edition of EN 14688, the most significant technical changes are the following:

a) introduction of the term “product type”;

b) introduction of the clause “Dangerous substances”;

c) modification of the marking of products;

d) replacement of the clause “Evaluation of conformity” by “Assessment and verification of constancy of performance - AVCP” and replacement of Annex ZA by a new one in accordance with provisions of Regulation 305/2011/EU.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the functional requirements and test methods for wash basins for domestic purposes.

NOTE 1 For the purposes of this standard the term “domestic purposes” includes use in hotels, accommodation for students, hospitals and similar buildings, except when special medical provisions are required.

NOTE 2 All drawings are examples only. The shape of the appliance is left to the discretion of the manufacturer.

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 ISO 6506-1, *Metallic materials - Brinell hardness test - Part 1: Test method (ISO 6506-1)*

ISO 9352, *Plastics - Determination of resistance to wear by abrasive wheels*

3 Terms and definitions

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

3.1
wash basin
sanitary appliance primarily intended for washing the upper parts of the body, with one or more bowls, each with a waste outlet hole, with or without overflow and with or without taphole(s)

Note 1 to entry: The various types of wash basins are differentiated by the methods of mounting. The main types are given in the definitions that follow.

3.1.1
wall-hung wash basin
wash basin attached directly to a wall

Note 1 to entry: See Figures 1 and 2.

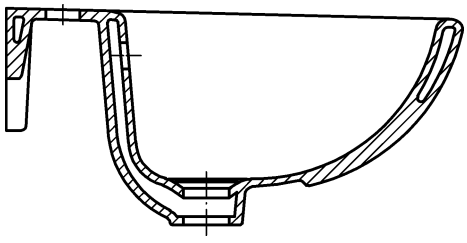


Figure 1 — Wall-hung wash basin with overflow

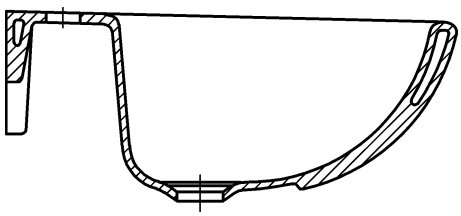


Figure 2 — Wall-hung wash basin without overflow

3.1.2
bracket-mounted wash basin
wash basin supported on brackets which are fixed to a wall

Note 1 to entry: See Figure 3.

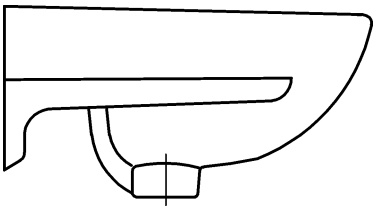


Figure 3 — Bracket-mounted wash basin

3.1.3
pedestal wash basin
wash basin supported by a floor mounted pedestal

Note 1 to entry: See Figure 4.

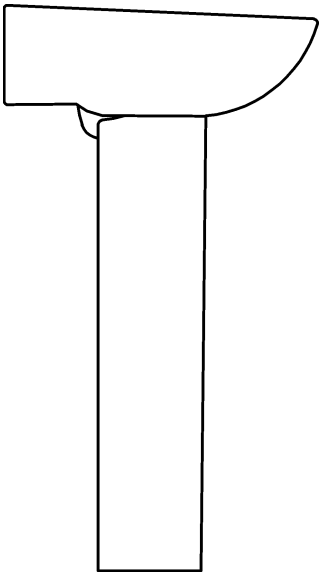


Figure 4 — Pedestal wash basin

3.1.4
vanity wash basin
wash basin installed into a vanity top

Note 1 to entry: See Figure 5.

Note 2 to entry: The bowl(s) may be mounted in different ways:

a) the rim of the wash basin rests on the vanity top (inset wash basin);

b) the front of the basin protrudes beyond the front edge of the vanity top (semi-recessed wash basin);

c) the rim of the wash basin butts against the underside of the vanity top (wash basin mounted beneath a vanity top);

d) the bottom of the wash basin rests on the vanity top (vessel wash basin).

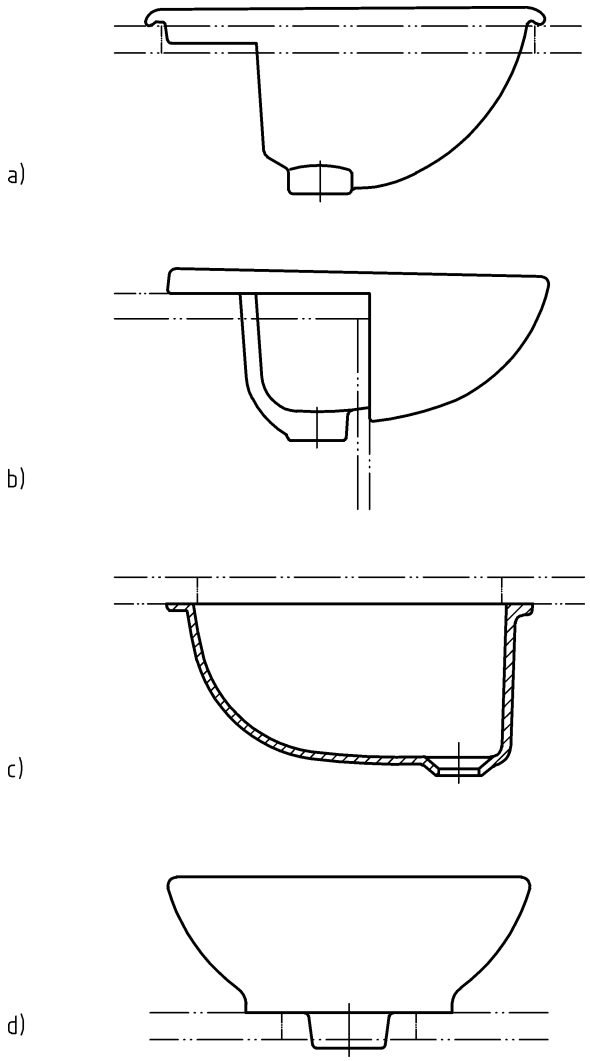


Figure 5 — Vanity top wash basins

3.1.5
corner wash basin
wash basin intended to be installed in a 90° wall corner and to be attached to both walls

3.2
handrinse basin
wash basin with a width of ≤ 530 mm, intended for hand washing only

3.3
multi-layer wash basin
wash basin consisting of two or more layers of material

3.4
product type
construction product with a set of representative performance levels or classes in relation to its Essential Characteristics, produced using a given combination of raw materials or other elements in a specific production process

4 Requirements

4.1 Load resistance

When tested in accordance with 5.2, wall-hung wash basins shall not crack, be broken or show permanent distortion.

4.2 Draining of water

When tested in accordance with 5.3, all water shall drain away.

4.3 Resistance to temperature changes

When wash basins are tested in accordance with 5.4, they shall not show defects, such as cracks or delamination which influences the intended use.

Experience has shown that wash basins made of glazed ceramics, stainless steel, enamelled steel and glass comply with this requirement.

4.4 Resistance to chemicals and staining agents

When used as intended, any functional surface shall be resistant to household chemicals and cleansing agents recommended by the manufacturer.

When tested in accordance with 5.5, wash basins shall not show any permanent surface deterioration, such as stains or deterioration not removable with water or abrasive agent.

Experience has shown that wash basins made of glazed ceramics, stainless steel and enamelled steel comply with this requirement.

4.5 Surface stability

This requirement is applicable only to multi-layer wash basins to ensure the stability of the top layer.

When tested in accordance with 5.6, any scratch shall not exceed 0,1 mm and/or the total depth of the top layer whichever is the least.

When tested in accordance with 5.7, the top layer of the test specimen shall not be abraded through.

Experience has shown that wash basins made of glazed ceramics and enamelled steel comply with these requirements.

4.6 Cleanability

When tested in accordance with 5.8, wash basins 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.

Experience has shown that wash basins manufactured from plastics materials, enamelled steel/cast iron, stainless steel, glazed ceramics and glass, designed and constructed without acute internal corners, satisfy this requirement.

4.7 Protection against overflowing

4.7.1 Wash basins with overflow

Every wash basin shall be protected against overflowing.

When tested in accordance with 5.9, the flow rate of a single overflow shall not be less than the values given in Table 1.

Table 1 — Flow rates of overflow

Overflow class	Overflow rate l/s
CL 25	0,25
CL 20	0,20
CL 15	0,15
CL 10	0,10
CL 00	See 4.7.2.

In two-bowl wash basins, it is permitted to have only one overflow, if the overflowing from one bowl to the other is ensured.

4.7.2 Wash basins without overflow

A wash basin with a non-closable outlet or a floor gully may also be used as a protection against overflowing. In this case the wash basin is considered to be class CL 00.

4.8 Durability

Products conforming with the requirements of 4.1 to 4.7 are deemed to be durable.

5 Test methods

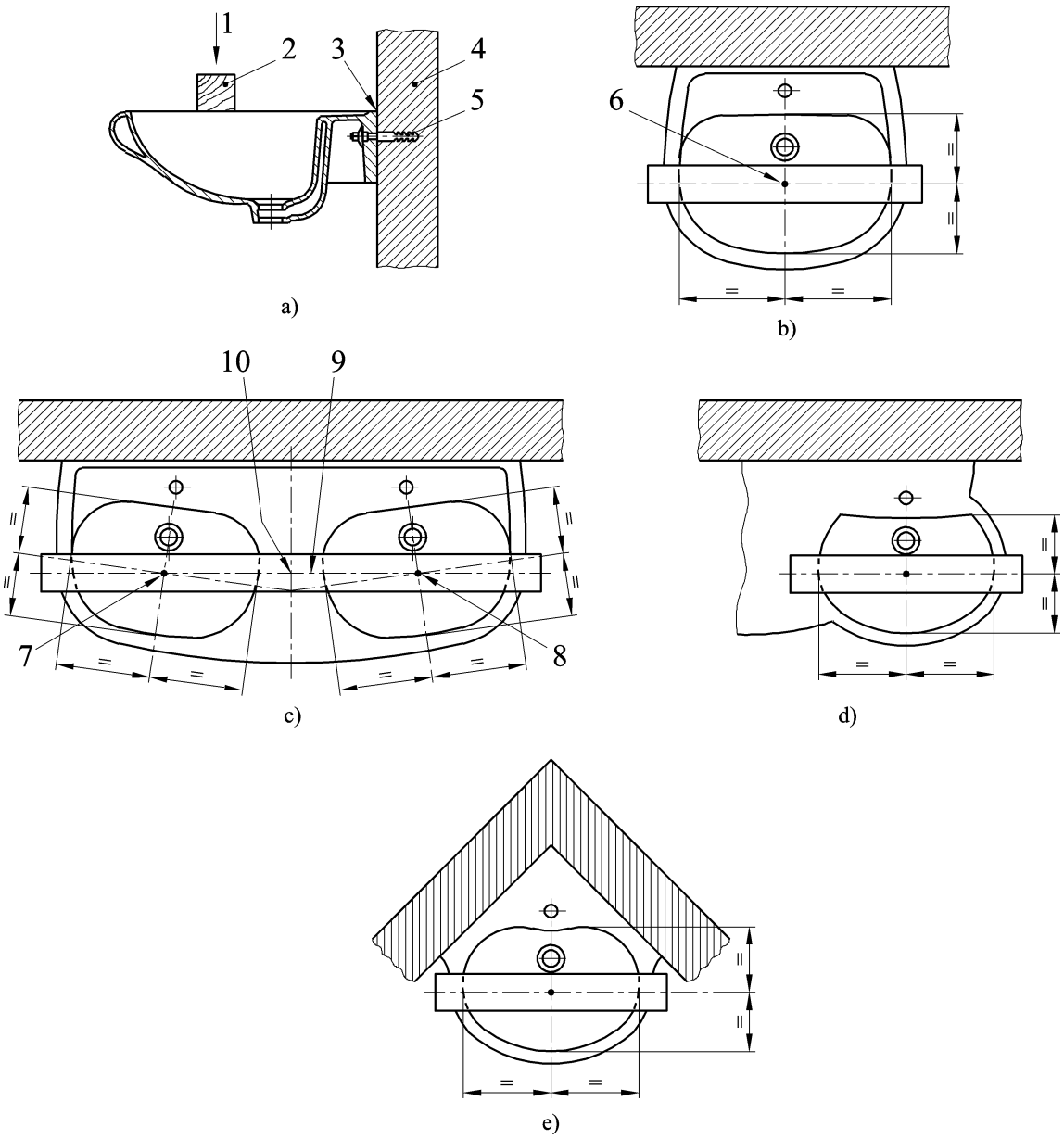
5.1 General

All tests may be carried out on the same sample wash basin.

5.2 Load resistance

— Install the wash basin to be tested in a horizontal position in accordance with the manufacturer's instructions onto smooth surface(s) with a layer of mortar or other facing material used for pointing between the back of wash basin and the smooth surface.

— Gradually apply a force of (1,50 ± 0,01) kN on top of a wooden beam with a cross section of 100 mm x 100 mm positioned in accordance with Figure 6. Allow the force to remain in position for a period of 1 h.



Key

a) installation of wash basins
b) testing a “standard-type” wash basin
c) testing a two-bowl wash basin
d) testing a non-symmetrical wash basin
e) testing a corner wash basin
1 force (1,50 ± 0,01) kN
2 wooden beam with cross-section 100 mm x 100 mm of adequate length
3 compensation layer
4 wall
5 threaded rod, nut and flexible washer (maximum torque 5 Nm)
6 geometric centre of bowl
7 geometric centre of the left bowl
8 geometric centre of the right bowl
9 centre of the contact area from exterior edge of wash basin through the geometric centre(s) of the bowl(s)
10 load point

Figure 6 — Test arrangements

— Record any failure to comply with 4.1. Distortions at the points of direct loading shall not constitute a failure.

5.3 Draining of water

— Install the wash basin horizontally in accordance with the manufacturer's installation instructions. The wash basin shall be cleaned with cleansing agents recommended by the manufacturer and afterwards shall be rubbed dry.

— Pour not less than 1 l water evenly around the upper inside edge of the bowl(s).

— Visually examine whether the water has drained to the waste outlet hole(s). Water remaining due to surface tension is permitted.

5.4 Resistance to temperature changes

5.4.1 Test apparatus

5.4.1.1 A hot water supply, capable of delivering water at a temperature of (70 ± 2)°C at the outlet of the discharge pipe.

5.4.1.2 A cold water supply, capable of delivering water at a temperature of (15 ± 2)°C at the outlet of the discharge pipe.

5.4.1.3 A discharge pipe with an internal diameter of 10 mm for delivering the hot and the cold water.

5.4.1.4 Means of supporting the wash basin to be tested in a horizontal position.

No stress shall be exerted on the wash basin.

5.4.1.5 A thermometer, capable of measuring temperatures between 0 °C and 100 °C with an accuracy of ± 1 °C at the measured temperature.

5.4.1.6 A flow meter, capable of measuring a flow rate of (0,1 ± 0,01) l/s.

5.4.2 Procedure

a) The waste outlet hole shall be open during the test.

b) The water supply shall be arranged as described below:

   1) the water impinges on the bottom of bowl at any point on a diameter of (110 ± 5) mm around the waste outlet hole;

   2) the outlet of the discharge pipe is to be positioned (80 ± 5) mm above the point of impingement.

c) Discharge hot water for a period of (90 ± 1) s at a flow rate of (0,1 ± 0,01) l/s.

d) Stop the flow for a period of (30 ± 1) s.

e) Discharge cold water for a period of (90 ± 1) s at a flow rate of (0,1 ± 0,01) l/s.

f) Stop the flow rate for a period of (30 ± 1) s.

g) Repeat this procedure 1 000 times without interruption.

h) The internal surface(s) of the bowl(s) shall be wiped dry.

i) Verify that the requirements of 4.3 are satisfied by visual inspection with the naked eye, at a distance of 600 mm and illumination by cool neon light of 150 lx, measured at the surface of the wash basin.

5.5 Resistance to chemicals and staining agents

5.5.1 Test apparatus and chemicals

5.5.1.1 Chemicals and staining agents:

The list of chemicals and staining agents is given in Table 2. Each solution shall be prepared immediately before use with deionized water, and applied at a temperature of (23 ± 5) °C.

Table 2 — Chemicals

Family	Product
Acids	Acetic acid (CH_3COOH), 10 % V/V
Alkalines	Sodium hydroxide (NaOH), 5 % m/m
Alcohols	Ethanol (C_2H_5OH), 70 % V/V
Bleaches	Sodium hypochlorite (NaOCl), 5 % active Chlorine (Cl_2)[a]
Staining agents	Methylene blue, 1 % m/m
Salts	Sodium chloride (NaCl), 170 g/l, diluted to 50 %
[a] The specified bleach may be replaced by sodium percarbonate ($2\ Na_2CO_3 \cdot 3\ H_2O_2$) prepared as follows: Dissolve 1 g of a commercially available powdery bleach based on sodium percarbonate containing 15 % to 30 % of the active component in 100 ml of deionized water at room temperature.	

5.5.1.2 Borosilicate watch glasses: 40 mm nominal diameter.

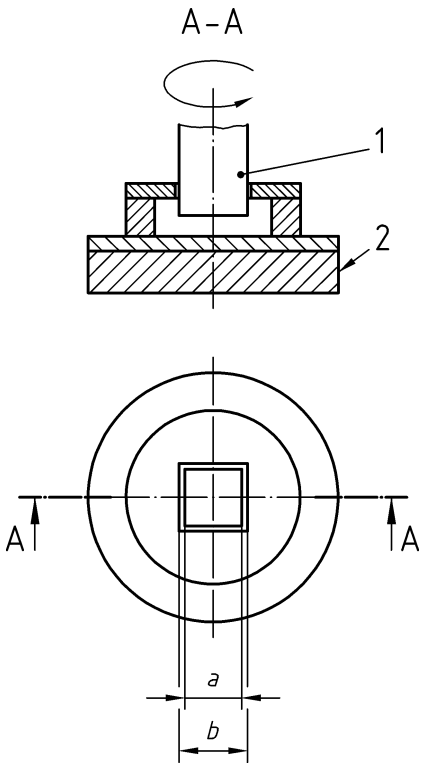
5.5.1.3 Pipettes.

5.5.1.4 Cleaning device.

The cleaning device is shown in Figure 7. It incorporates a synthetic flexible open cell foam disc of 75 mm diameter and 15 mm thickness. It is driven by means of a square axle which loosely fits into the device. Any rotating device having a mass of (1 000 ± 50) g can be used.

5.5.1.5 12 h-alumina (suspension of aluminium oxide (Al_2O_3) in water)[1)].

1) A suitable product is available form MERCK Eurolab-Prolabo, 54 rue Roger Salengro, 94126 Fortenay sous Bois CEDEX, France, as DURMAX™ under product description Nº 20993. This information is given for the convenience of users of this standard and does not constitute an endorsement of the product by CEN.



Key

1 square axle, $a = b - 1$ mm

2 foam

a inner dimension

b outer dimension

Figure 7 — Cleaning device

5.5.2 Test specimens

Carry out the tests on the bottom, and on a flat part of the wall of the wash basin or on test specimens (100 ± 5) mm x (100 ± 5) mm cut from these areas.

5.5.3 Procedure

a) Select a test area.

b) Use each test area for only one reagent. Clean the test area thoroughly with hot soapy water then dry with a clean dry cloth.

c) At each test area, deposit a drop of the test solution. Cover the drop with a watch glass concave side downwards. The drop size shall be determined in order to be completely covered by the watch glass. Allow the selected chemical to act for a period of (2 ± 0,25) h at (23 ± 5) °C protected from sunlight.

d) Thoroughly rinse the test area with deionized water and check for adverse changes in appearances by visual examination. If deterioration exists, dip the foam disc in deionized water and place it on the surface to be tested. Rotate the cleaning device at a speed of 60 min^{-1}. Clean for 30 revolutions.

e) Rinse with deionized water and visually examine the test area. If deterioration persists, repeat the cleaning process with the 12 h-alumina and re-examine the test area.

f) Record:

1) whether or not the reagent causes a stain or deterioration;

2) whether or not such stain or deterioration is removed, and if so, with water or with 12 h-alumina.

5.6 Resistance to scratching

5.6.1 Apparatus

Scratch testing apparatus (see Figure 8) consisting of:

5.6.1.1 Stand with a device to indicate the horizontal position, e.g. a spirit level.

5.6.1.2 Freely rotating supporting turntable (A) which can be motor driven turning about a vertical axis without play.

5.6.1.3 Arm (B) carrying the holder for the diamond, mounted on a horizontal axis ball bearing.

The height of this axis shall be adjustable so that the arm is exactly horizontal when the scratching point rests on the test specimen.

5.6.1.4 Means of applying a defined force (C).

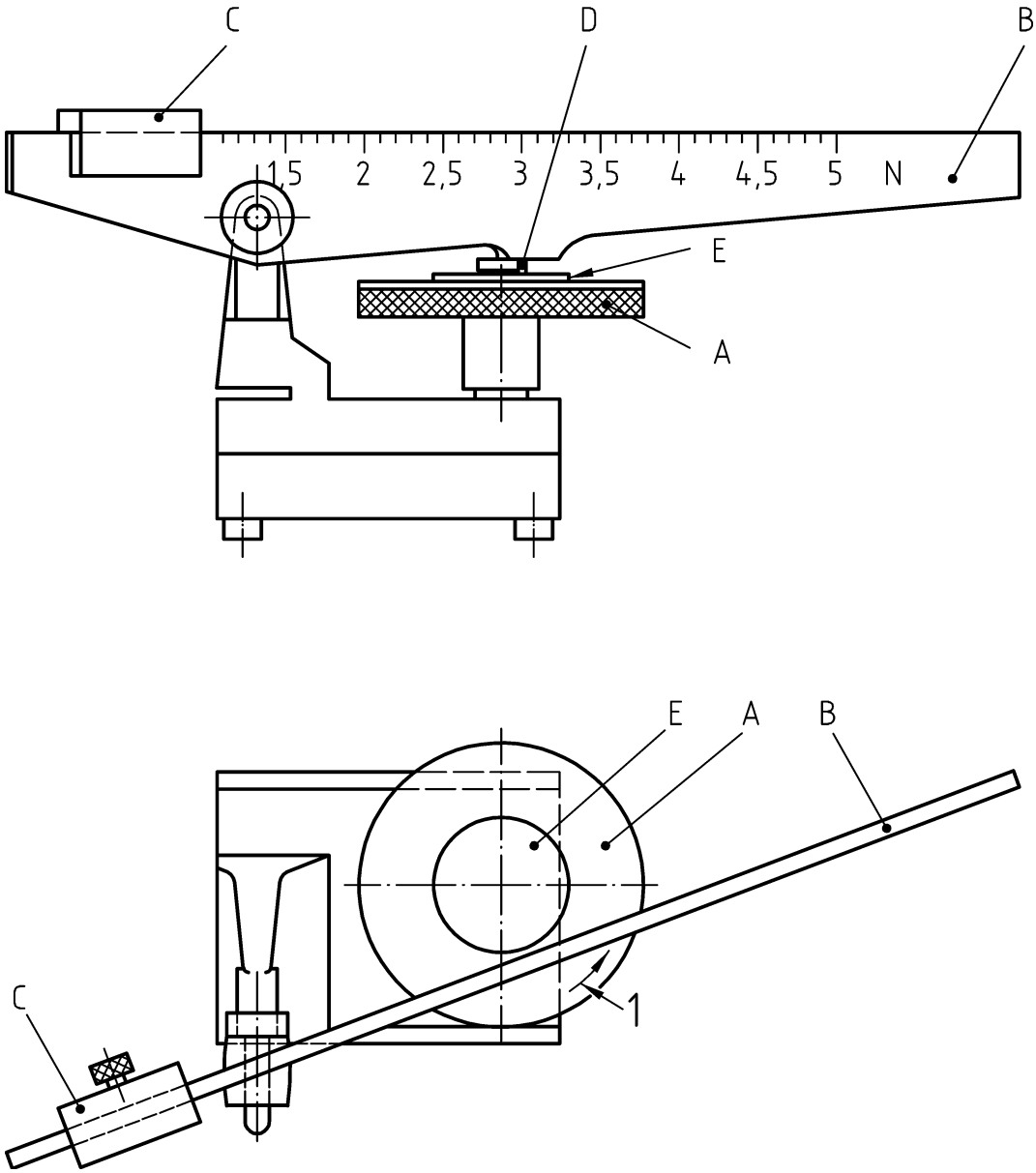
5.6.1.5 Diamond scratching point (D), cone-shaped, the axis of which is perpendicular to the sample surface and which has an angle of (45 ± 0,5)° at the top.

The point of the cone shall be hemispherical with a radius of (0,09 ± 0,001) mm. Its geometrical regularity shall be verified and its profile measured on a complete rotation of 360°. The point shall be rejected, if any irregularity of the curvature above ± 0,001 mm is measured. All diamond points shall be rechecked after each 1 000 tests to confirm geometry.

5.6.1.6 Microscope or similar measuring device capable of measuring to an accuracy of 5 µm.

5.6.2 Test specimen

Use a test specimen cut from the bottom of wash basin (see Figure 9). Test specimens shall be flat. When the test specimen cannot be cut from a wash basin, specially prepared specimens can be used provided the top functional layer is of the same thickness as that in a wash basin to be tested. The thickness of the top layer shall be measured in accordance with 5.6.3. The test specimen shall be preconditioned at a temperature of (23 ± 2) °C and relative humidity of (50 ± 5) % for 24 h. When using a microscope, pre-coat the test specimen with an ink of a contrasting colour.



Key

1 rotating direction

A supporting turntable

B arm

C means to apply the force

D scratching point

E locking disc

Figure 8 — Scratch-testing apparatus

Dimensions in millimetres

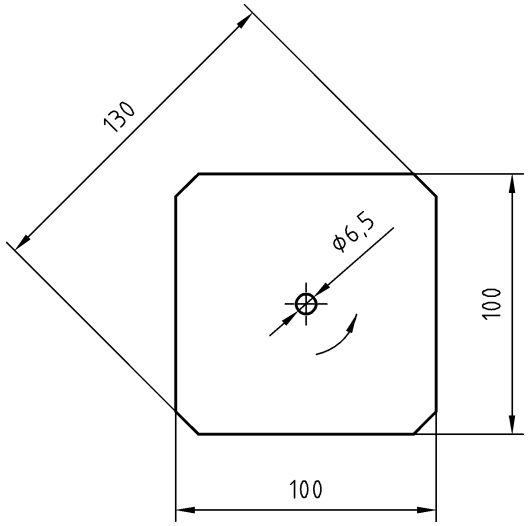


Figure 9 — Test specimen

5.6.3 Procedure

— Adjust the height of the arm (B) so that it is horizontal when the diamond point rests on the test specimen. Place the arm (B) in a vertical position. Fix the test specimen with the locking disc (E) and secure it correctly to avoid any slipping. Lower the arm (B) and place the diamond point in contact with the test specimen taking care to avoid any impact.

— Apply a force of (10 ± 0,1) N.

— Start rotating the turntable in order to produce a scratch of 3 cm to 4 cm long.

Measure the width of the scratch and calculate its depth as 50 % of the width of the scratch. Measure the thickness of the top layer in the middle of the four sides and calculate the average.

5.7 Resistance to abrasion

5.7.1 Principle

The test measures the ability of the top layer of the multi-layer wash basin to resist abrasion through to the sub-layer. Abrasion is produced by rotating a test specimen in contact with a pair of loaded cylindrical wheels covered with abrasive paper.

5.7.2 Test apparatus and materials

Test machine[2)] as specified in ISO 9352:

5.7.2.1 Calibration plates of rolled zinc sheet having a thickness of (0,8 ± 0,1) mm and a Brinell hardness of (48 ± 2) BHN when tested in accordance with EN ISO 6506-1, except that the ball diameter shall be 5 mm and the force 360 N.

2) A suitable machine is available from Taber Acquisition Corp. Taber Industries, 455 Bryant St. P.O. Box 164, North Tonawanda, NY 14120, USA. This test machine is an example of a suitable machine available commercially. This information is given for the convenience of users of this standard and does not constitute an endorsement of the machine by CEN.

5.7.2.2 Abrasive paper strips with a width of 12,7 mm and length of about 160 mm having the following specification[3)]:

a) paper with grammage of 70 g/m^2 to 100 g/m^2;

b) aluminium oxide powder (Al_2O_3) having a particle size such that it will pass through a sieve of aperture 100 µm and remain on a sieve having an aperture of 63 µm.

5.7.2.3 Double sided adhesive tape, required only if the abrasive paper has no adhesive backing.

5.7.3 Test specimen

Three test specimens shall be taken, each from a different wash basin of identical type and model.

They shall be discs of diameter about 130 mm, or squares of about 120 mm with corners to give a diagonal of about 130 mm, and have a hole of diameter 6 mm in their centres.

Test specimens shall be flat. When the test specimen cannot be cut from a wash basin, specially prepared specimens can be used provided the top functional layer is of the same thickness as that in a wash basin to be tested. The thickness of the top layer shall be measured in accordance with 5.6.3.

Clean the surface of the test specimens with a non-hazardous organic solvent which is immiscible with water.

5.7.4 Procedure

— Prepare the abrasive wheels by bonding a strip of abrasive paper (see 5.7.2.2) to each of the rubber covered wheels, using either the adhesive backing, if present, or the double-sided adhesive tape (see 5.7.2.3), in such a way that the cylindrical surface is completely covered, but without any overlapping of the abrasive paper.

— Check the suitability of the abrasive paper by preparing two abrasive wheels with unused strips of abrasive paper from the batch to be used for testing as follows: Clamp a zinc plate (see 5.7.2.1) in the test specimen holder, operate the suction device, and abrade the zinc plate for 500 revolutions. Wipe the zinc plate clean and weigh it to the nearest 1 mg. Replace the used abrasive paper strips on the wheels, with unused strips from the same batch, clamp the same zinc plate in the specimen holder, lower the abrasive wheels and operate the suction device. Abrade the zinc plate for an additional 500 revolutions, then wipe it clean and reweigh it to the nearest 1 mg. Its loss in mass shall be (130 ± 20) mg. Any batch of abrasive paper which causes a loss in mass of the zinc plate outside this permitted range shall not be used for testing.

— Prepare sufficient abrasive wheels for the test, using unused abrasive paper. Fit two wheels to the machine loaded to 250 g each and set the revolution counter to zero.

— Clamp the test specimen in the holder, ensuring that its surface is flat. Lower the abrasive wheels onto the test specimen so that the wheels' cylindrical faces are at an equivalent distance from the test specimen's axis of rotation but not tangential to it. Operate the suction device and allow the test specimen to rotate.

— Replace the abrasive paper after every 100 revolutions.

— Stop the test after 750 revolutions.

3) Paper S 33 provided by Taber Acquisition Corp. Taber Industries, 455 Bryant St. P.O. Box 164, North Tonawanda, NY 14120, USA, is deemed to satisfy this specification. The calibration procedure prescribed in 5.7.4 can be omitted. This information is given for the convenience of users of this standard and does not constitute an endorsement of the machine by CEN.

— Observe if the top layer of any of the three test specimens is abraded through.

5.8 Cleanability

— Visually examine the functional surfaces of the wash basins using a suitable light source.

— Record any failure to comply with 4.6.

Imperfections that do not affect the functionality of the surface should not constitute a failure.

5.9 Determination of flow rate of overflow

— The wash basin shall be installed horizontally in accordance with the manufacturer's instructions.

— Close the waste-outlet hole(s).

— Introduce the water supply 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 water supply in such a way that no water spills over the external rim of the wash basin or work top.

— Read the water flow rate after a steady-state condition has been established for a period of 60 s by means of a flow-meter fitted into the supply pipe.

6 Dangerous substances

National regulations on dangerous substances may require verification and declaration on release, and sometimes content, when construction products covered by this standard are placed on those markets.

In the absence of European harmonized test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction website on EUROPA.

7 Marking and product designation

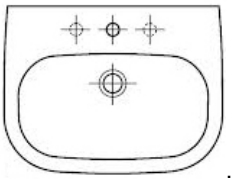
The intended use of wash basins is personal hygiene in accordance with the scope of this European Standard.

NOTE The intended use is also mentioned in Annex ZA, Table ZA.1. The abbreviation “PH” for the intended use personal hygiene might be used for CE marking.

A schematic drawing of the product may optionally follow the abbreviation for personal hygiene.

EXAMPLE 1 Use of full text: Personal hygiene.

EXAMPLE 2 Use of abbreviation: PH.

EXAMPLE 3 Use of the abbreviation and the optional schematic drawing: PH  .

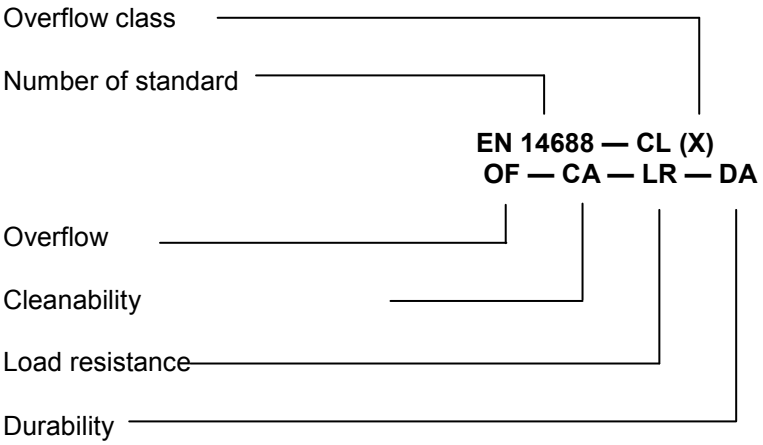
Wash basins belong always to one class and type at least. For each class and type a set of requirements to be tested (see 8.2.2) is defined. Due to this, a wash basin can be described with a designation code which includes all fulfilled essential requirements.

The relevant product characteristics and the Essential Characteristics for wash basins including their abbreviations are given in Table 3.

Table 3 — Characteristics and abbreviations for wash basins

Abbreviation	Characteristics
EN 14688	Number of European Standard for wash basins for product description
CL (X)	Class of wash basin with an integral overflow providing a flow rate (X) with: 25 for ≥ 0,25 l/s flow rate 20 for ≥ 0,20 l/s flow rate 15 for ≥ 0,15 l/s flow rate 10 for ≥ 0,10 l/s flow rate 00 for without integral overflow
OF	Overflow
CA	Cleanability
LR	Load resistance (for wall-hung wash basins only)
DA	Durability

All wash basins shall be designated in accordance with the following system:



The declaration of the characteristics of the second line is considered being covered by the declaration of the relevant class. However, the characteristics should be listed when one of those characteristics is not declared.

EXAMPLE 4 Class 25 wash basin, i.e. wash basin with an integral overflow providing a flow rate ≥ 0,25 l/s. All Essential Characteristics specified for these products in accordance with Annex ZA are satisfied.

EN 14688 — CL 25

8 Assessment and verification of constancy of performance – AVCP

8.1 General

The compliance of wash basins with the requirements of this standard and with the performances declared by the manufacturer in the DoP shall be demonstrated by:

— determination of the product type (see 8.2);

— factory production control by the manufacturer (FPC), including product assessment (see 8.3).

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).

8.2 Type testing

8.2.1 General

All performances related to characteristics included in this standard shall be determined when the manufacturer intends to declare the respective performances unless the standard gives provisions for declaring them without performing tests. (e.g. use of previously existing data, CWFT and conventionally accepted performance).

Assessment previously performed in accordance with the provisions of this standard, may be taken into account provided that they were made to the same or a more rigorous test method, under the same AVCP system on the same product or products of similar design, construction and functionality, such that the results are applicable to the product in question.

For the purposes of assessment, the manufacturer's products may be grouped into families, where it is considered that the results for one or more characteristics from any one product within the family are representative for that same characteristics for all products within that same family.

Products may be grouped in different families for different characteristics.

Reference to the assessment method standards should be made to allow the selection of a suitable representative sample.

In addition, the determination of the product type shall be performed for all characteristics included in the standard for which the manufacturer declares the performance:

— at the beginning of the production of a new or modified wash basins (unless a member of the same product range); or

— at the beginning of a new or modified method of production (where this may affect the stated properties); or

— they shall be repeated for the appropriate characteristic(s), whenever a change occurs in the modified wash basins design, in the raw material or in the supplier of the components, or in the method of production (subject to the definition of a family), which would affect significantly one or more of the characteristics.

Where components are used whose characteristics have already been determined, by the component manufacturer, on the basis of assessment methods of other product standards, these characteristics need not be re-assessed. The specifications of these components shall be documented.

Products bearing regulatory marking in accordance with appropriate harmonized European specifications may be presumed to have the performances declared in the DoP, although this does not replace the responsibility on the wash basins manufacturer to ensure that the wash basins as a whole are correctly manufactured and its component products have the declared performance values.

8.2.2 Test samples, testing and compliance criteria

The number of samples of wash basins to be tested/assessed shall be in accordance with Table 4.

Table 4 — Type testing for wash basins

Characteristic to be tested	Assessment method according to clauses of this standard	Number of samples	Requirement and Compliance criteria
Load resistance	5.2	1	4.1
Draining of water	5.3	1	4.2
Resistance to temperature changes	5.4	1	4.3
Resistance against chemicals and staining agents	5.5	1	4.4
Resistance to scratching	5.6	1	4.5
Resistance to abrasion	5.7	1	4.5
Cleanability	5.8	1	4.6
Flow rate of overflow	5.9	1	4.7

8.3 Factory production control (FPC)

8.3.1 General

The manufacturer shall establish, document and maintain an FPC system to ensure that the products placed on the market comply with the declared performance of the essential characteristics.

The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control raw and other incoming materials or components, equipment, the production process and the product.

The results of inspections, tests or assessments requiring action shall be recorded. The action to be then when control values or criteria are not met shall be recorded.

NOTE Manufacturers having an FPC system which complies with EN ISO 9001 and which addresses the provisions of the present European Standard are considered as satisfying the FPC requirements of the Regulation (EU) No. 305/2011

8.3.2 Equipment

8.3.2.1 Testing

All weighing, measuring and testing equipment shall be calibrated and regularly inspected in accordance with the documented procedures, frequencies and criteria.

8.3.2.2 Manufacturing

All equipment used in the manufacturing process shall be regularly inspected and maintained to ensure use; wear or failure does not cause inconsistency in the manufacturing process. Inspections and maintenance shall be carried out and recorded in accordance with the manufacturer’s written procedures and the records retained for the period defined in the manufacturer’s FPC procedures.

8.3.3 Raw materials and components

The specifications of all incoming raw materials and components shall be documented, as shall the inspection scheme for ensuring their compliance. In case supplied kit components are used, the constancy of

performance system of the component shall be that given in the appropriate harmonized technical specification for that component.

8.3.4 Product testing and assessment

The manufacturer shall establish and document procedures to ensure that the stated values of all of the characteristics are maintained.

8.3.5 Non-complying products

The manufacturer shall have written procedures which specify how non-complying products shall be dealt with. Any such events shall be recorded as they occur and these records shall be kept for the period defined in the manufacturer's written procedures.

Where the product fails to satisfy the acceptance criteria, the provisions for non-complying products shall apply, the necessary corrective action(s) shall immediately be taken and the products or batches not complying shall be isolated and properly identified.

Once the fault has been corrected, the test or verification in question shall be repeated.

The results of controls and tests shall be properly recorded. The product description, date of manufacture, test method adopted, test results and acceptance criteria shall be entered in the records under the signature of the person responsible for the control/test.

With regard to any control result not meeting the requirements of this European Standard, the corrective measures taken to rectify the situation (e.g. a further test carried out, modification of manufacturing process, throwing away or putting right of product) shall be indicated in the records.

8.3.6 Corrective action

The manufacturer shall have documented procedures that instigate action to eliminate the cause of non-conformities in order to prevent recurrence.

Annex ZA
(informative)

Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation

ZA.1 Scope and relevant characteristics

This European Standard has been prepared under Mandate M/110 “Sanitary appliances” as amended by M/139 given to CEN by the European Commission and the European Free Trade Association.

If this European Standard is cited in the Official Journal of the European Union (OJEU), the clauses of this standard, shown in this annex, are considered to meet the provisions of the relevant mandate, under the Regulation (EU) No. 305/2011.

This annex deals with the CE marking of the wash basins intended for the uses indicated in Table ZA.1 and shows the relevant clauses applicable.

This annex has the same scope as in Clause 1 of this standard related to the aspects covered by the mandate and is defined by Table ZA.1.

Table ZA.1 — Relevant clauses for wash basins

Construction product: **Intended use:**	**Wash basin** **Personal hygiene**		
Essential Characteristics	**Requirement clauses in this European Standard**	**Regulatory classes**	**Notes**
Load resistance	4.1	—	Pass/Fail
Cleanability	4.6	—	Pass/Fail
Capacity of overflow	4.7	—	Technical class
Durability	4.8	—	Pass/Fail

The declaration of the product performance related to certain Essential Characteristics is not required in those Member States (MS) where there are no regulatory requirements on these Essential Characteristics for the intended use of the product.

In this case, manufacturers placing their products on the market of these MS are not obliged to determine nor declare the performance of their products with regard to these Essential Characteristics and the option “No performance determined” (NPD) in the information accompanying the CE marking and in the declaration of performance (see ZA.3) may be used for those Essential Characteristics.

ZA.2 Procedure for assessment and verification of constancy of performance (AVCP) of wash basins

ZA.2.1 System of AVCP

The AVCP system of wash basins indicated in Table ZA.1, established by EC Decision 96/578/EC (OJ L254 of 8.10.1996 p.49) amended by EC Decision(s) 2001/596/EC (OJ L 209 p. 33 of 2.8.2001) and 2002/592/EC (OJ L 192 p. 57 of 20.7.2002) is shown in Table ZA.2 for the indicated intended use(s) and relevant level(s) or class(es) of performance.

Table ZA.2 — System of AVCP

Product	Intended use	Level(s) or class(es)	AVCP system(s)
Wash basin	Personal hygiene	—	4
System 4: See Regulation (EU) No. 305/2011 (CPR) Annex V, 1.5			

The AVCP of the wash basins in Table ZA.1 shall be according to the AVCP procedures indicated in Table ZA.3 resulting from application of the clauses of this or other European Standard indicated therein. The content of tasks of the notified body shall be limited to those Essential Characteristics as provided for, if any, in Annex III of the relevant mandate and to those that the manufacturer intends to declare.

Table ZA.3 — Assignment of AVCP tasks for wash basins used under system 4

Tasks		Content of task	AVCP clauses to apply
Task for the manufacturer	Determination of the product type on the basis of type testing, type calculation, tabulated values or descriptive documentation of the product	Essential Characteristics of relevant Table ZA.1 relevant for the intended use which are declared	8.2
	Factory production control (FPC)	Parameters related to Essential Characteristics of relevant Table ZA.1 relevant for the intended use	8.3

ZA.2.2 Declaration of performance (DoP)

ZA.2.2.1 General

The manufacturer draws up the DoP and affixes the CE marking on the basis of the different AVCP systems set out in Annex V of the Regulation (EU) No. 305/2011:

— the factory production control carried out by the manufacturer;

— the determination by the manufacturer of the product type on the basis of type testing, type calculation, tabulated values or descriptive documentation of the product.

ZA.2.2.2 Content

The model of the DoP is provided in Annex III of the Regulation (EU) No. 305/2011.

In accordance with this Regulation, the DoP shall contain, in particular, the following information:

— the reference of the product type for which the declaration of performance has been drawn up;

— the AVCP system or systems of the construction product, as set out in Annex V of the CPR;

— the reference number and date of issue of the harmonized standard which has been used for the assessment of each Essential Characteristic;

— where applicable, the reference number of the Specific Technical Documentation used and the requirements with which the manufacturer claims the product complies.

The DoP shall in addition contain:

a) the intended use or uses for the construction product, in accordance with the applicable harmonized technical specification;

b) the list of Essential Characteristics, as determined in the harmonized technical specification for the declared intended use or uses;

c) the performance of at least one of the Essential Characteristics of the construction product, relevant for the declared intended use or uses;

d) where applicable, the performance of the construction product, by levels or classes, or in a description, if necessary based on a calculation in relation to its Essential Characteristics determined in accordance with the Commission determination regarding those Essential Characteristics for which the manufacturer shall declare the performance of the product when it is placed on the market or the Commission determination regarding threshold levels for the performance in relation to the Essential Characteristics to be declared;

e) the performance of those Essential Characteristics of the construction product which are related to the intended use or uses, taking into consideration the provisions in relation to the intended use or uses where the manufacturer intends the product to be made available on the market;

f) for the listed Essential Characteristics for which no performance is declared, the letters “NPD” (No Performance Determined).

Regarding the supply of the DoP, Article 7 of the Regulation (EU) No. 305/2011 applies.

The information referred to in Article 31 or, as the case may be, in Article 33 of Regulation (EC) No. 1907/2006 (REACH) shall be provided together with the DoP.

ZA.2.2.3 Examples of DoP

The following gives examples of a filled-in DoP for wash basins.

EXAMPLE 1 Full-text version of DoP with attached list of product numbers (identification codes) for this DoP:

DECLARATION OF PERFORMANCE

No. ABC1234

1. Unique identification code of the product-type:

For product number(s) see list attached.

2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4):

Wash basin(s)

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

Personal hygiene (PH)

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

AnyCo SA,
PO Box 21
B-1050 Brussels, Belgium
Tel. +32987654321
Fax: +32123456789
Email: anyco.sa@provider.be

5. Where applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12(2):

Anyone Ltd
Flower Str. 24
West Hamfordshire
UK-589645 United Kingdom
Tel. +44987654321
Fax: +44123456789
e-mail: anyone.ltd@provider.uk

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR (305/2011/EU), Annex V:

System 4

7. In case of the declaration of performance concerning a construction product covered by a harmonized standard:

Determination of product type and factory production control by the manufacturer

8. Declared performance

Essential Characteristics[a]	Performance	Harmonized technical specification
Load resistance (LR)	**Pass**	EN 14688:2015
Cleanability (CA)	**Pass**	
Capacity of overflow (OF)	**Pass**	
Durability (DA)	**Pass**	
[a] Specific performance of Essential Characteristics are given by the designation code as cited in the attachment.		

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

……

(Name and function)

…… ……

(place and date of issue) (signature)

Attachment to Declaration of Performance

No. ABC1234

Product no.	Collection (optional)	Description (optional)	CE marking (optional)	Digits (optional)
6620 01	Amadea	Wash basin	EN 14688 — CL 25	11
…..				

……

(Name and function)

…… ……

(place and date of issue) (signature)

(Page/Pages)

EXAMPLE 2 Short-text version of DoP with attached list of product numbers (identification codes) for this DoP:

Declaration of Performance

No. ABC1234

1. **For product numbers (identification code) see list attached.**

2. **Wash basin**

3. **Personal hygiene (PH)**

4. **Ceramic sanitary ware Manufacturer**
   Any Street 1
   12345 Example City
   Country
   Ph.: +49 987-8654-0
   Fax: +49 987-8654-1
   info@sanitary-plant.com

5. **n.a.**

6. **System 4**

7. **Determination of product type and factory production control by the manufacturer**

8.

Essential characteristics[a]	Performance	Harmonized technical specification
LR	**Pass**	EN 14688:2015
CA	**Pass**	
OF	**Pass**	
DA	**Pass**	
[a] Specific performance of Essential Characteristics are given by the designation code as cited in the attachment..		

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8.

   This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

   Signed for and on behalf of the manufacturer by:

……

(Name and function)

…… ……

(place and date of issue) (signature)

(Page/Pages)

Attachment to Declaration of Performance

No. ABC1234

Product no.	Collection (optional)	Description (optional)	CE marking (optional)	Digits (optional)
6620 01	Amadea	Wash basin	EN 14688 — CL 25	11
…..				

……

(Name and function)

…… ……

(place and date of issue) (signature)

(Page/Pages)

ZA.3 CE marking and labelling

The CE marking symbol shall be in accordance with the general principles set out in Article 30 of Regulation (EC) No. 765/2008 and shall be affixed visibly, legibly and indelibly:

— to the wash basin,

or

— to a label attached to it.

Where this is not possible or not warranted on account of the nature of the product, it shall be affixed:

— to the packaging,

or

— to the accompanying documents.

The CE marking shall be followed by:

— the last two digits of the year in which it was first affixed;

— the name and the registered address of the manufacturer, or the identifying mark allowing identification of the name and address of the manufacturer easily and without any ambiguity;

— the unique identification code of the product-type;

— the reference number of the declaration of performance;

— the level or class of the performance declared;

— the reference to the harmonized technical specification applied;

— the intended use as laid down in the harmonized technical specification applied.

The CE marking shall be affixed before the construction product is placed on the market. It may be followed by a pictogram or any other mark notably indicating a special risk or use.

Figures ZA.1 and ZA.2 give examples of the information related to products subject to AVCP under system 4 to be given on the label.

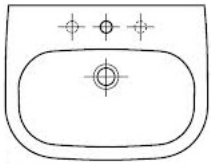
CE	*CE marking, consisting of the "CE"-symbol*
AnyCo Ltd, PO Box 21, B-1050	*Name and the registered address of the manufacturer, or identifying mark*
15	*Last two digits of the year in which the marking was first affixed*
ABC1234	*Reference number of the DoP*
6620 01	*Unique identification code of the product type*
 **PH**	*Intended use of the product as laid down in the European Standard applied*
EN 14688 — CL 25	*No. of European Standard applied, as referenced in OJEU and level or class of the performance declared*

Figure ZA.1 — Example CE marking information of wash basins

CE	*CE marking, consisting of the "CE"-symbol*
AnyCo Ltd, PO Box 21, B-1050	*Name and the registered address of the manufacturer, or identifying mark*
15	*Last two digits of the year in which the marking was first affixed*
ABC1234	*Reference number of the DoP*
6620 01	*Unique identification code of the product type*
Personal hygiene	*Intended use of the product as laid down in the European Standard applied*
EN 14688 — CL 25 **OF - LR - DA**	*No. of European Standard applied, as referenced in OJEU and level or class of the performance declared*

Figure ZA.2 — Example CE marking information of wash basins with limited set of declared characteristics

Bibliography

EN ISO 9001, *Quality management systems - Requirements (ISO 9001)*

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