BS EN 14516:2015

BSI Standards Publication

Baths for domestic purposes

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National foreword

This British Standard is the UK implementation of EN 14516:2015. It supersedes BS EN 14516:2006+A1:2010 which is withdrawn.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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Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14516

September 2015

ICS 91.140.70

Supersedes EN 14516:2006+A1:2010

English Version

Baths for domestic purposes

Baignoires à usage domestique

Badewannen für den Hausgebrauch

This European Standard was approved by CEN on 20 August 2015.

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.

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

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Ref. No. EN 14516:2015 E

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European foreword

This document (EN 14516:2015) 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of an identical text or by endorsement, at the latest by March 2016, and conflicting national standards shall be withdrawn at the latest by June 2017.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 14516:2006+A1:2010.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports basic requirements for construction works of Regulation (EU) No. 305/2011 on construction products.

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

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 requirements, test methods and procedures for evaluation of conformity for baths used for domestic purposes and personal hygiene, which ensure that the product, when installed and maintained in accordance with the manufacturer's instructions, will satisfy requirements for cleanability and durability.

This European Standard is applicable to all sizes and shapes of baths.

This European Standard does not cover baths for use with medical provisions.

NOTE 1 For the purpose of this standard the term “domestic purposes” includes use in hotels, accommodation for students, hospitals and similar buildings.

NOTE 2 Annex A lists characteristics of materials commonly used for manufacturing baths.

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 232, *Baths — Connecting dimensions*

EN ISO 28706-1:2011, *Vitreous and porcelain enamels — Determination of resistance to chemical corrosion — Part 1: Determination of resistance to chemical corrosion by acids at room temperature (ISO 28706-1:2008)*

EN ISO 28706-2:2011, *Vitreous and porcelain enamels — Determination of resistance to chemical corrosion — Part 2: Determination of resistance to chemical corrosion by boiling acids, boiling neutral liquids and/or their vapours (ISO 28706-2:2008)*

EN ISO 28706-3:2011, *Vitreous and porcelain enamels — Determination of resistance to chemical corrosion — Part 3: Determination of resistance to chemical corrosion by alkaline liquids using a hexagonal vessel (ISO 28706-3:2008)*

3 Terms and definitions

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

3.1
bath
sanitary appliance used for partial immersion and washing of the human body or parts of it, and for directing water to a waste outlet after use

3.2
cleanability
characteristics which allow the surface intended to come into contact with water to be non-absorbent and readily kept visually free from dirt and/or stains when subject to a maintenance regime which may include, when appropriate, specific instructions for use and care specified by the manufacturer

3.3
durability
attributes of materials and their surfaces intended to come into contact with water, which allow the anticipated working life of the product

4 Classification

— Class 1: Products complying with the requirements of Clause 5.

— Class 2: Products complying with the requirements of Clause 6.

5 Requirements for class 1 products

5.1 General

The manufacturer shall provide instructions with each bath covering installation and care.

NOTE Annex B gives advice which manufacturers can include in their instructions.

5.2 Cleanability

5.2.1 Appearance of surface

When a bath is inspected under strong and oblique illumination, the surfaces intended to come into contact with water shall be visibly smooth, non-absorbent and free from inaccessible corners that would impair the cleanability.

NOTE Surfaces with cracks, chips, crazing and other similar defects are not considered to be smooth.

5.2.2 Drainage of water

Baths shall have at least one waste outlet hole. The dimensions of the waste outlet hole shall comply with the requirements of EN 232. Other dimensions are permissible, if the manufacturer provides or recommends a suitable waste fitting.

All water shall empty from the bath unless prevented by surface tension.

5.3 Durability

5.3.1 General

Conformance with the requirements of 5.3.2 to 5.3.4 give an assurance of durability.

5.3.2 Stability of bottom

When tested in accordance with 8.1, there shall be no permanent distortion or other defects, e.g. cracks, such that the requirements of 5.2.2 are not satisfied.

5.3.3 Resistance to chemicals and staining agents

5.3.3.1 General

When baths, other than those made from the materials specified in 5.3.3.2, are tested in accordance with 8.2, the surface finish shall be unaffected by the chemicals and staining agents specified in Table 1, except for superficial surface changes which are removable with water or with water and the specified abrasive agent.

Table 1 — Chemicals and staining agents

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 (NaOCI), 5 % active chlorine (CI_2) [a]
Staining agents	Methylene blue, 1 % m/m

[a] The specified bleach may be replaced by sodium percarbonate ($2Na_2CO_3 \cdot 3H_2O_2$) prepared as follows: Dissolve 1 g of a commercial available powdery bleach based on sodium percarbonate containing 15 % to 30 % of the active component in 100 ml deionized water at room temperature.

5.3.3.2 Particular requirements for baths made of enamelled steel and enamelled cast iron

Baths made from enamelled steel and enamelled cast iron shall comply with the requirements given in Table 2.

Table 2 — Requirements for baths made of enamelled steel and enamelled cast iron

Requirement	Parameter	Test method
Resistance to boiling water	< 10 g/m²	EN ISO 28706-2:2011, Clause 13
Resistance to cold citric acid	Class A+	EN ISO 28706-1:2011, Clause 9
Resistance to boiling citric acid	< 5 g/m²	EN ISO 28706-2:2011, Clause 10
Resistance to cold sulphuric acid	Class A+	EN ISO 28706-1:2011, Clause 10
Resistance to alkali solutions	< 8 g/m²	Testing in accordance with EN ISO 28706-2:2011, Clause 14 Test solution in accordance with EN ISO 28706-3:2011, Clause 9 Duration of test: 2,5 h

5.3.4 Resistance to temperature changes

When tested in accordance with 8.3, all baths shall show no evidence of distortion or other defects, e.g. crazing, which will impair their cleanability.

Experience has shown that baths manufactured from the stainless steel grades listed in Annex A, enamelled steel, enamelled cast iron and glazed ceramics comply with this requirement.

6 Requirements for class 2 products

6.1 General

The manufacturer shall provide instructions with each bath covering installation and care.

NOTE Annex B gives advice which manufacturers can include in their instructions.

6.2 Cleanability

6.2.1 Appearance of surface

When a bath is inspected under strong and oblique illumination, the surfaces intended to come into contact with water shall be visibly smooth, non-absorbent and free from inaccessible corners that would impair the cleanability.

NOTE Surfaces with cracks, chips, crazing and other similar defects are not considered to be smooth.

6.2.2 Drainage of water

Baths shall have at least one waste outlet hole. The dimensions of the waste outlet hole shall comply with the requirements of EN 232. Other dimensions are permissible, if the manufacturer provides or recommends a suitable waste fitting.

All water shall empty from the bath unless prevented by surface tension.

6.3 Durability

6.3.1 General

Baths shall be readily cleanable for their anticipated working life when normal cleaning and maintenance is carried out.

6.3.2 Materials

Experience has shown that baths made from plastics materials, enamelled steel, enamelled cast iron, stainless steel, glazed ceramics or glass and their surfaces intended to come into contact with water have the properties described in 6.3.1.

7 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 harmonised 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 web site on EUROPA and can be accessed through: http://ec.europa.eu/growth/tools-databases/cp-ds/.

8 Test methods

8.1 Stability of the bottom of the bath

8.1.1 Test apparatus

— adequate number of reinforced cloth bags each with dimensions of approximately 500 mm x 200 mm filled with lead shot, iron shot or sand of a mass of 25 $^{+0,5}_{0}$ kg or 12,5 $^{+0,5}_{0}$ kg.

8.1.2 Determination of the load

The load to be applied for the test shall comprise:

— adequate number of cloth bags (see 8.1.1) equating to 100 kg for each user intended to use the bath at the same time;

— adequate number of cloth bags (see 8.1.1) to simulate the mass of water that can be contained in the bath.

The load shall equate to the volume of water with an accuracy of $^{+25}_{0}$ kg, if 25 kg bags are used, or $^{+12,5}_{0}$ kg, if 12,5 kg bags are used, when the bath is filled to the overflow. If no overflow is provided the volume to the overspill level shall be used. The volume can be determined by measurement, or values declared in the manufacturer's docuemnts can be used.

8.1.3 Procedure

a) Install the bath in accordance with the manufacturer's installation instructions.

b) Position the bags to simulate the mass of water that can be contained along the bottom of the bath as shown in Figure 1.

c) Position the adequate number of bags for each user that can use the bath at the same time in separate piles, as shown in Figure 1.

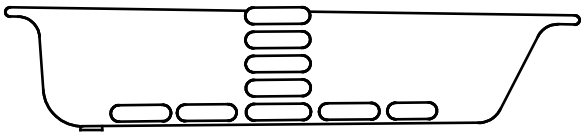


Figure 1 — Load application (for each user)

d) Leave the total load for 10 $^{+1}_{0}$ min.

e) Without moving the bags representing the mass of water that can be contained, move the pile(s) of bags representing a user(s) to a different position(s) along the bottom of the bath and leave again for 10 $^{+1}_{0}$ min. When a bath has a clearly indicated position for a user to stand or to sit, e.g. a slip resistant feature or a seating area, carry out one loading test with a pile of bags representing a user, at the approximate centre of any such feature.

f) On completion of the tests remove all the bags.

g) After 10 $^{+1}_{0}$ min verify that the bath complies with 5.3.2 by pouring copious amounts of water coloured in contrast with the colour of the bath around all the inner surface of the sides of the bathing area.

8.2 Resistance to chemicals and staining agents

8.2.1 Principle

The test is intended to give an indication of the effect of commonly used household chemicals and cleansing agents.

8.2.2 Test apparatus and chemicals

8.2.2.1 Chemicals and staining agents:

A list of chemicals and staining agents to be used is specified in Table 1. Each chemical solution shall be prepared immediately before use with deionized water, and it shall be applied at a temperature (23 ± 5) °C.

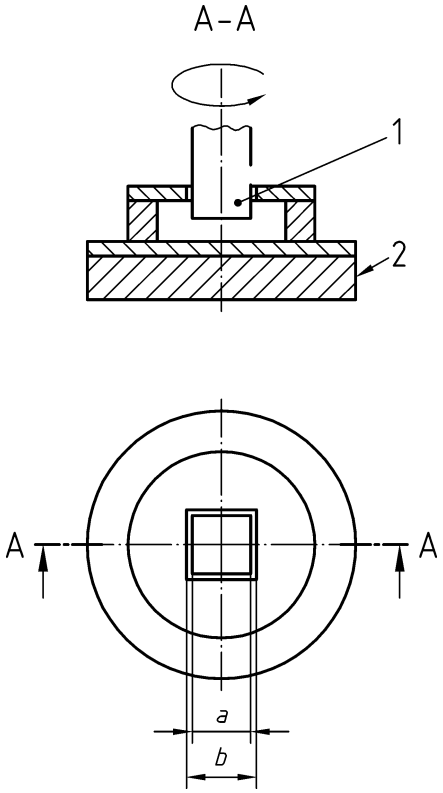
8.2.2.2 Borosilicate watch glasses: 40 mm nominal diameter.

8.2.2.3 Pipettes.

8.2.2.4 Cleaning device:

A typical cleaning device is shown in Figure 2. It consists of a disc of 75 mm diameter, faced with synthetic flexible open cell foam 15 mm in thickness. The device is driven by means of a square axle which fits loosely into the device. Any device having a mass of (1 000 ± 50) g can be used.

8.2.2.5 Abrasive comprising 12 h-alumina (suspension of aluminium oxide in water)[1)].



Key

1 square axle ($a = b - 1$ mm)

2 disc faced with foam

Figure 2 — Cleaning device

8.2.3 Test specimens

Carry out the tests on the bottom, and on a flat part of the wall of the bath or on test specimens cut from these areas.

8.2.4 Procedure

a) Select an area to be tested.

1) A suitable product is available from MERCK Eurolab-Prolabo, 54 rue Roger Salengro, 94126 Fontenay sous Bois CEDEX, France, as DURMAX™ under product description N° 20993. This information is given for the convenience of users of this standard and does not constitute an endorsement by CEN of these products.

b) Use each test area only once for each application. Clean the test area thoroughly with hot soapy water, rinse and wipe dry with a clean dry cloth.

c) At each of the test areas deposit a drop of the test solution. Cover the drop with a watch glass concave face downwards. The drop size shall be such that it is completely covered by the watch glass. Leave for (120 ± 5) min with the test area protected from sunlight.

d) Thoroughly rinse the test areas with deionized water and visually check for any adverse change in appearance. If any deterioration is noticed, dip the foam disc in deionized water and place it on the surface that was tested. Rotate the cleaning device at a speed of 60 min^{-1}. Clean for 30 revolutions.

e) Rinse with deionized water, dry and visually re-examine the test areas. If any deterioration persists, repeat the cleaning process using the abrasive comprising 12 h-aluminia suspended in water and re-examine.

8.2.5 Expression of results

a) Note the exact test area.

b) Record:

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

2) whether or not such stain or deterioration is removed, and if so, whether with water or with water including abrasive agent.

8.3 Resistance to temperature changes

8.3.1 Apparatus

8.3.1.1 Water supply capable of discharging cold and hot water with temperatures, flow rates and volumes as defined in 8.3.2.

8.3.1.2 Pipe with a nominal diameter of 22 mm;

8.3.1.3 Thermometer with an accuracy of 1 % at the measured values;

8.3.1.4 Flow meter suitable for measuring a flow rate of (0,32 ± 0,032) l/s.

8.3.2 Procedure

a) With the waste outlet open, discharge (50 ± 1) l of water through the pipe positioned not more than 125 mm above the overspill level of the bath. The pipe shall also be positioned so that the water impinges on the side of the bathing area nearest to the waste outlet hole, in a position where a supply fitting is likely to discharge. The temperature of water at the outlet of the pipe shall be (90 ± 2) °C and the flow rate into the bath shall be (0,32 ± 0,032) l/s.

b) With the waste outlet closed, discharge immediately afterwards (100 ± 2) l of water at a temperature (12 ± 3) °C at the same flow rate through the same pipe in the same position.

c) Leave the water in the bath for $10\ ^{+1}_{0}$ min then allow it to drain off.

d) With the waste outlet closed, discharge water through the pipe positioned not more than 125 mm above the overspill level of the bath. The pipe shall also be positioned so that the water impinges on the side of the bathing area nearest to the waste outlet hole, in a position where a supply fitting is

likely to discharge. The water shall fill the bath to a height of 250 mm minimum above the waste outlet level. The temperature of water at the outlet of the pipe shall be (75 ± 2) °C and the flow rate into the bath shall be (0,32 ± 0,032) l/s.

e) Leave the water in the bath for $10\ ^{+1}_{0}$ min then allow it to drain off.

f) With the waste outlet closed, add immediately afterwards the same volume of cold water with a temperature of (12 ± 3) °C, at the same flow rate through the same pipe in the same position.

g) Leave the water in the bath for $10\ ^{+1}_{0}$ min then allow it to drain off.

h) Repeat this procedure 100 times without interruption.

i) After the last cycle, apply over the surface of the bath by means of a sponge or paint brush a solution of eosine in water at 100 g/l to which is added 1 cm^3/l of liquid detergent. Leave for $5\ ^{+1}_{0}$ min, then remove the eosine from the surface by cleaning with a damp cloth.

j) Visually check for any adverse change in appearance and for any trace of eosine.

k) Record any failure to comply with requirements of 5.3.4.

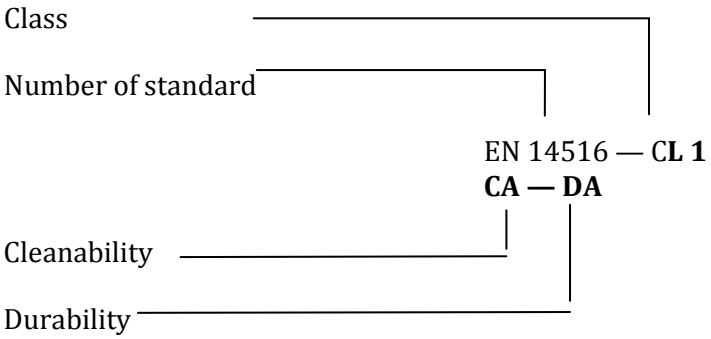
9 Marking, labelling and packaging

The relevant Essential Characteristics for baths including their abbreviations are given in Table 3.

Table 3 — Characteristics and abbreviations

Abbreviation	Characteristics
EN 14516	Number of European Standard for baths for product description
CA	Cleanability
CL 1	Class 1 product complying with the requirement of Clause 5
CL 2	Class 2 product complying with the requirement of Clause 6
DA	Durability

All baths shall be designated in accordance with the following system:



The second line of the designation code can be omitted when those characteristics are fulfilled.

EXAMPLE 1 For a bath of Class 1 where all Essential Characteristics specified in accordance with Annex ZA are satisfied.

EN 14516 — CL 1

EXAMPLE 2 For a bath of both Class 1 and Class 2 where all Essential Characteristics specified in accordance with Annex ZA are satisfied.

EN 14516 — CL 1 + CL 2

NOTE For CE marking, see Annex ZA.

10 Assessment and verification of constancy of performance - AVCP

10.1 General

The compliance of a bath with the requirements of this standard and with the performances declared by the manufacturer in the Declaration of Performance (DoP) shall be demonstrated by:

— type testing (see 10.2).

Baths as identified by the manufacturer are of the same type when they have the same shape and construction and when they are of the same material. However, they may have different features;

— factory production control by the manufacturer (FPC), including product assessment (see 10.3).

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).

10.2 Type testing

10.2.1 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 bath (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 bath 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 of the bath manufacturer to ensure that the bath as a whole is correctly manufactured and its component products have the declared performance values.

10.2.2 Further type testing

Baths are considered to be of the same type, when they have the same design, construction and performance characteristics and when they are of the same material, however they may have different features.

Whenever a change occurs in the bath, the raw material or supplier of the components, or the production process that would change significantly one or more of the stated characteristics, the type tests shall be repeated for the appropriate characteristics.

10.2.3 Samples, testing and compliance criteria

The bath shall be subjected to and pass the relevant tests in Table 4 or Table 5 before delivery commences.

Table 4 — Type testing for class 1 products

Characteristics to be tested	Assessment method according to clauses of this standard	Number of samples	Compliance criteria
Appearance of surface	5.2.1	1	5.2.1
Drainage of water	5.2.2	1	5.2.2
Stability of bottom	8.1	1	5.3.2
Resistance against chemicals and staining agents	8.2	1	5.3.3.1
Requirements of baths made from enamelled steel and cast iron	5.3.3.2	1	5.3.3.2
Resistance to temperatures changes	8.3	1	5.3.4

Table 5 — Type testing for class 2 products

Characteristics to be tested	Assessment method according to clauses of this standard	Number of samples	Compliance criteria
Appearance of surface	6.2.1	1	6.2.1
Drainage of water	6.2.2	1	6.2.2
Durability	6.3	1	6.3

10.3 Factory production control

10.3.1 General

The manufacturer shall establish, document and maintain a factory production control (FPC) system to ensure that the products placed on the market conform with the stated performance 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 taken 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.

10.3.2 Equipment

10.3.2.1 Testing

All weighing, measuring and testing equipment shall be calibrated and regularly inspected according to documented procedures, frequencies and criteria.

10.3.2.2 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.

10.3.3 Raw materials and components

The specifications of all incoming raw materials and components shall be documented, as shall the inspection scheme for ensuring their conformity. In cases where 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.

10.3.4 Product testing and assessment

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

10.3.5 Non-conforming products

The manufacturer shall have written procedures which specify how non-conforming 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-conforming products shall apply, the necessary corrective action(s) shall immediately be taken and the products or batches not conforming 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.

10.3.6 Corrective action

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

Annex A
(informative)

Materials

A.1 Synthetic materials

Synthetic sanitaryware is characterized by being made from plastics comprising pure synthetic polymers, or a polymer alloy, or a polymer composite with added fillers and/or fibres.

Synthetic sanitaryware can comprise one or more layers of the above mentioned plastics materials.

Plastics materials may contain auxiliary products, such as colours, stabilizers, antioxidants, U.V. absorbers and crosslinking agents.

When sanitaryware made from plastics has one or multi-layer composites, the fillers and/or the fibres may be, by weight, the major part of the material.

See also EN 263 and EN 13559.

A.2 Ceramic materials

A.2.1 Vitreous china

Material made of a compact vitrified body, white or coloured, with a water absorption coefficient less than 0,75 %, covered with an opaque or translucent glaze which can be white or coloured.

The body is usually made of kaolin, quartz, clay, sodium or potassium feldspars.

The glaze is usually made of sodium, potassium or calcium aluminium-silicates.

A.2.2 Fireclay

Material made of a porous body, generally covered with a white or coloured engobe and an opaque or translucent glaze which can be white or coloured.

The body is made of clay and grog (clacined clay). The engobe, where it exists, is prepared with kaolins, clays, quartz, sodic or potassic feldspars.

The glaze is usually made of sodium, potassium or calcium aluminium-silicates.

A.3 Enamelled materials

A.3.1 Enamelled cast iron

A glazed surface finish produced by the application of a powdered inorganic glass either dry or suspended in water, to cast iron parts, and its subsequent fusion by heat.

A.3.2 Enamelled steel

A glazed surface finish produced by the application of a powdered inorganic glass either dry or suspended in water, to sheet steel parts, and its subsequent fusion by heat.

A.4 Stainless steel

Designations for stainless steel grades used for manufacturing baths:

1.4510, 1.4520, 1.4301, 1.4401, 1.4521 as listed in EN 10088-2.

Annex B
(informative)

Surfaces of baths

When wet, the surface of the majority of baths will show an increase in the potential for slipping. This is particularly the case when soap, shampoo, bath oil, etc. are used. It is important that designers, installers and users are aware of this.

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 M110 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 baths intended for the use indicated in Table ZA.1.1 or Table ZA.1.2 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.1.1 or Table ZA.1.2.

Table ZA.1.1 — Relevant clauses for class 1 products

Product: Baths **Intended use:** Personal hygiene			
Essential Characteristics	**Clauses in this and other European Standard(s) related to essential characteristics**	**Regulatory classes**	**Notes**
Cleanability	5.2	None	Pass/fail
Durability	5.3	None	Pass/fail

Table ZA.1.2 — Relevant clauses for class 2 products

Product: Baths **Intended use:** Personal hygiene			
Essential Characteristics	**Clauses in this and other European Standard(s) related to essential characteristics**	**Regulatory classes**	**Notes**
Cleanability	6.2	None	Pass/fail
Durability	6.3	None	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 baths

ZA.2.1 System of AVCP

The AVCP system of baths indicated in Table ZA.1.1 or Table ZA.1.2, established by Commission Decision 96/578/EC of 24 June 1996 (OJ L 254 8.10.1996, p. 49) amended by EC Decision(s) 2001/596/EC and 2002/592/EC 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(s) of AVCP

Products	Intended uses	Level(s) or class(es) of performance	AVCP system(s)
Bath	Personal hygiene	—	4
System 4: See Regulation (EU) No. 305/2011 (CPR) Annex V, 1.5.			

The AVCP of the baths in Table ZA.1.1 or Table ZA.1.2 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 baths under system 4

Tasks		Content of the task	AVCP clauses to apply
Task for the manufacturer	Initial type testing	All relevant characteristics of Table ZA.1.1 or Table ZA.1.2	10.2
	Factory production control	Parameters related to all relevant characteristics of Table ZA.1.1 or Table ZA.1.2	10.3

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.

According to 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 Example of DoP

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

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

DECLARATION OF PERFORMANCE

No. 001CPR2013-07-14

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):

Bath

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 St. 24

West Hamfordshire

AB1 2CD 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, Annex V:

System 4

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

   Determination of the product type on the basis of type testing, type calculation, tabulated values or descriptive documentation of the product;

8. Declared performance

Essential characteristics [a]	**Performance**	**Harmonized technical specification**
Cleanability	**Pass**	EN 14516:2015
Durability	**Pass**	EN 14989–1:2007
[a] Specific performance of essential requirements 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. CPR-14516

Product no.	**Product name (Optional)**	**Description (Optional)**	**CE marking (Optional)**	**Digits (Optional)**
12345		Bath	**CA — DA**	
…..				

……

(Name and function)

…… ……

(place and date of issue) (signature)

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

Declaration of Performance

No. CPR-14516

1. **For product number (identification code) see list attached.**
2. **Bath**
3. **Personal hygiene (PH)**
4. **Any Co Ltd**

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. **Declared performance**

Essential characteristics [a]	Performance	Harmonized technical specification
Cleanability	**Pass**	EN 14516:2015
Durability	**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. CPR-14516

Product no.	**Product name (Optional)**	**Description (Optional)**	**CE marking (Optional)**	**Digits (Optional)**
12345		Bath	**CA — DA**	
…..				

……

(Name and function)

…….. ……..

(place and date of issue) (signature)

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 product

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.

Figure ZA.1 gives an example of the information related to products subject to AVCP system 4 to be given on the product or to a label attached to it or to the packaging or to the accompanying documents.

CE	*CE marking, consisting of the "CE"-symbol*
AnyCo Ltd, PO Box 21, B-1050, Brussels, Belgium **15** 001CPR2013–07–14	*Name and the registered address of the manufacturer, or identifying mark* *Last two digits of the year in which the marking was first affixed* *Reference number of the DoP*
A1234XYZ PH EN 14516 CL 1	*Unique identification code of the product-type* *Intended use of the product as laid down in the European standard applied* *No. of European standard applied, as referenced in OJEU* *Level or class of the performance declared*

Figure ZA.1 — Example CE marking information of products under AVCP system 4 to be given on the product or to a label attached to it or to the packaging or to the accompanying documents

Bibliography

[1] EN 263, *Sanitary appliances — Crosslinked cast acrylic sheets for baths and shower trays for domestic purposes*

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

[3] EN 13559, *Specifications for impact modified coextruded ABS/Acrylic sheets for baths and shower trays for domestic purposes*

[4] EN ISO 9000, *Quality management systems —Fundamentals and vocabulary (ISO 9000)*

[5] EN ISO 9001, *Quality management systems — Requirements (ISO 9001)*

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