BS EN 12566-4:2016

BSI Standards Publication

Small wastewater treatment systems for up to 50 PT

Part 4: Septic tanks assembled in situ from prefabricated kits

bsi.

National foreword

This British Standard is the UK implementation of EN 12566-4:2016. It supersedes BS EN 12566-4:2007 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/505, Wastewater engineering.

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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EUROPEAN STANDARD

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Supersedes EN 12566-4:2007

English Version

Small wastewater treatment systems for up to 50 PT - Part 4: Septic tanks assembled in situ from prefabricated kits

Petites installations de traitement des eaux usées jusqu'à 50 PTE - Partie 4: Fosses septiques assemblées sur site en kit d'éléments préfabriquées

Kleinkläranlagen für bis zu 50 EW - Teil 4: Bausätze für vor Ort einzubauende Faulgruben

This European Standard was approved by CEN on 25 June 2016.

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European foreword

This document (EN 12566-4:2016) has been prepared by Technical Committee CEN/TC 165 “Wastewater engineering”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2017, and conflicting national standards shall be withdrawn at the latest by May 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12566-4:2007.

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 EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The differences between this version and EN 12566-4:2007 are mainly editorial changes according to the Construction Product Regulation (CPR).

The standard series EN 12566 “Small wastewater treatment systems for up to 50 PT” contains the following parts (see Figure 1):

— *Part 1: Prefabricated septic tanks*;

— *Part 3: Packaged and/or site assembled domestic wastewater treatment plants*;

— *Part 4: Septic tanks assembled in situ from prefabricated kits (this document)*;

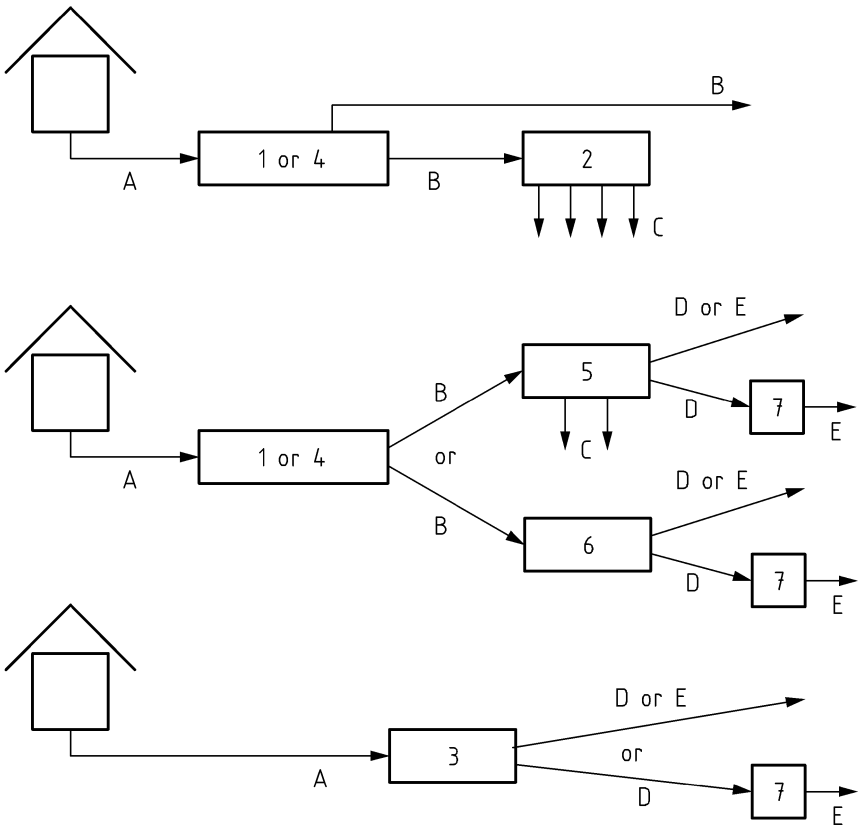
— *Part 6: Prefabricated treatment unit used for septic tank effluent*;

— *Part 7: Prefabricated tertiary treatment unit.*

For filtration systems, CEN/TC 165 decided to publish the following CEN Technical reports, which are considered as Code of practices and do not specify treatment requirements:

— *Part 2: Soil infiltration systems;*

— *Part 5: Pre-treated Effluent Filtration systems.*



Key

A	domestic wastewater	1	prefabricated septic tank
B	septic tank effluent	2	soil infiltration system
C	treated infiltrated effluent	3	packaged and/or site assembled domestic wastewater treatment plant
D	treated wastewater	4	septic tank assembled *in situ* from prefabricated kit
E	tertiary treated wastewater	5	pre-treated effluent filtration system
		6	prefabricated treatment unit used for septic tank effluent
		7	prefabricated tertiary treatment unit

National regulations may specify different arrangements between the products described in the standard series EN 12566.

Figure 1 — Scheme related to the arrangement of the parts of EN 12566

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 requirements for septic tanks assembled *in situ* from prefabricated kits and ancillary equipment where applicable, used outside buildings for the partial treatment of domestic wastewater for a population up to 50 PT. Pipe sizes, loads, watertightness, marking and evaluation of conformity are specified.

This European Standard does not apply to septic tanks receiving grey water only.

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 681-1, *Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber*

EN 12566-1:2016, *Small wastewater treatment systems for up to 50 PT — Part 1: Prefabricated septic tanks*

EN 16323:2014, *Glossary of wastewater engineering terms*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12566-1:2016, EN 16323:2014 and the following apply.

3.1
kit
complete set of components provided by a single manufacturer and assembled on its permanent site from a kit in order to form a septic tank

3.2
ancillary equipment
pipe connections and internal components that are part of the septic tank kit

3.3
product family
group of products in which, for the purpose of evaluation, the selected property(s) is/are similar for all products within the group

Note 1 to entry: The definition of family takes into account at least similar shape, equipment, materials and conditions of end use and ensures the minimum hydraulic efficiency and minimum structural behaviour for all the products in the range.

Note 2 to entry: The minimum level of performance (hydraulic efficiency and structural behaviour) are given by the test carried out on one model of the family.

4 Product characteristics

Products according to this standard shall meet the requirements of EN 12566-1:2016, Clause 4.

In addition to the specifications of EN 12566-1, elastomeric seals for joints shall conform to EN 681-1, where applicable.

Where the product consists of more than one tank, the evaluation of the structural behaviour of the product family shall be carried out according to EN 12566-1 for each different sized tank.

Where the product consists of more than one tank, the hydraulic efficiency test shall be done according to EN 12566-1 after assembling the tanks.

Pipe connections and ancillary equipment shall be in accordance with the relevant standards.

Durability is ensured by the product passing the relevant requirements for each essential characteristic, if they represent the state of the art.

5 Testing, assessment and sampling methods

Products according to this standard shall be tested according to EN 12566-1:2016, Clause 5 as relevant.

6 Assessment and verification of constancy of performance – AVCP

6.1 General

The compliance of the septic tank 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;

— factory production control by the manufacturer, including product assessment.

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).

6.2 Type testing

6.2.1 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.

NOTE 1 Same AVCP system means testing by an independent third party, and for reaction to fire under the responsibility of a notified product certification body (only for products covered by system 1+ and 1).

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 product family are representative for that same characteristics for all products within that same family

NOTE 2 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 septic tank (unless a member of the same product family); or

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

— or they shall be repeated for the appropriate characteristic(s), whenever a change occurs in the septic tank design, in the raw material or in the supplier of the components, or in the method of production (subject to the definition of a product 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 septic tank manufacturer to ensure that the septic tank as a whole is correctly manufactured and its component products have the declared performance values.

6.2.2 Test samples, testing and compliance criteria

The number of samples of septic tank to be tested/assessed shall be in accordance with Table 1.

Table 1 — Number of samples to be tested and compliance criteria

Characteristic	Requirement	Assessment method	Number of tests/ samples	Compliance criteria
Inlets, outlets, internal pipework and connections	See EN 12566–1:2016, 4.1.1	According to EN 12566–1:2016, 4.1.1	Each unit in the product family	Characteristic dimensions
Overall dimensions	See EN 12566–1:2016, 4.1.2 and 4.1.3	According to EN 12566–1:2016, 4.1.2 and 4.1.3	Each unit in the product family	Characteristic overall dimensions
Structural behaviour	See EN 12566–1:2016, 4.2	According to EN 12566–1	One unit of the product family	— backfill load; — hydrostatic loads; — dynamic loads.
Watertightness	See EN 12566–1:2016, 4.3	According to EN 12566–1:2016, Annex A	Each unit in the product family	"Pass" or "Fail"
Hydraulic efficiency	See EN 12566–1:2016, 4.4	According to EN 12566–1:2016, 5.3 and Annex B	One unit of the product family	Grams of beads collected
Access	See EN 12566–1:2016, 4.6	According to EN 12566–1:2016, 4.6	Each unit in the product family	Characteristic dimensions
Durability	See EN 12566–1:2016, 4.7	According to EN 12566–1:2016, 4.7	Each material(s)	"Pass" or "Fail" according to material used and test method applied
Reaction to fire	See EN 12566–1:2016, 4.8	According to EN 12566–1:2016, 4.8	Each material(s)	Declared class A1 (CWT) Declared class: the lowest class according to EN 13501–1 of the relevant material
Release of dangerous substances	See EN 12566–1:2016, 4.9	According to EN 12566–1:2016, 4.9	Each material(s)	As relevant

6.2.3 Test reports

The results of the determination of the product type shall be documented in test reports. All test reports shall be retained by the manufacturer for at least 10 years after the last date of production of the septic tank to which they relate.

6.2.4 Shared other party results

A manufacturer may use the results of the product type determination (in consistency with this standard) obtained by someone else (e.g. by another manufacturer, as a common service to manufacturers, or by a product developer), to justify his own declaration of performance regarding a product that is manufactured according to the same design (e.g. dimensions) and with raw materials, constituents and manufacturing methods of the same kind, provided that:

— the results are known to be valid for products with the same essential characteristics relevant for the product performance;

— in addition to any information essential for confirming that the product has such same performances related to specific essential characteristics, the other party who has carried out the determination of the product type concerned or has had it carried out, has expressly accepted[1] to transmit to the manufacturer the results and the test report to be used for the latter's product type determination, as well as information regarding production facilities and the production control process that can be taken into account for FPC;

— the manufacturer using other party results accepts to remain responsible for the product having the declared performances and he also:

  — ensures that the product has the same characteristics relevant for performance as the one that has been subjected to the determination of the product type, and that there are no significant differences with regard to production facilities and the production control process compared to that used for the product that was subjected to the determination of the product type; and

  — keeps available a copy of the determination of the product type report that also contains the information needed for verifying that the product is manufactured according to the same design and with raw materials, constituents and manufacturing methods of the same kind.

6.2.5 Cascading determination of the product type results

For some construction products, there are companies (often called "system houses") which supply or ensure the supply of, on the basis of an agreement[2] some or all of the components to an assembler who then manufactures the finished product (referred to below as the "assembler") in his factory.

Provided that the activities for which such a system house is legally established include manufacturing/assembling of products as the assembled one, the system house may take the responsibility for the determination of the product type regarding one or several essential characteristics of an end product which is subsequently manufactured and/or assembled by other firms in their own factory.

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[1] The formulation of such an agreement can be done by licence, contract, or any other type of written consent.

[2] This can be, for instance, a contract, license or whatever kind of written agreement, which should also contain clear provisions with regard to responsibility and liability of the component producer (system house, on the one hand, and the assembler of the finished product, on the other hand.

When doing so, the system house shall submit an "assembled product" using components manufactured by it or by others, to the determination of the product type and then make the determination of the product type report available to the assemblers, i.e. the actual manufacturer of the product placed on the market.

To take into account such a situation, the concept of cascading determination of the product type might be taken into consideration in the technical specification, provided that this concerns characteristics for which either a notified product certification body or a notified test laboratory intervene, as presented below.

The determination of the product type report that the system house has obtained with regard to tests carried out by a notified body, and which is supplied to the assemblers, may be used for the regulatory marking purposes without the assembler having to involve again a notified body to undertake the determination of the product type of the essential characteristic(s) that were already tested, provided that:

— the assembler manufactures a product which uses the same combination of components (components with the same characteristics), and in the same way, as that for which the system house has obtained the determination of the product type report. If this report is based on a combination of components not representing the final product as to be placed on the market, and/or is not assembled in accordance with the system house's instruction for assembling the components, the assembler needs to submit his finished product to the determination of the product type;

— the system house has notified to the manufacturer the instructions for manufacturing/assembling the product and installation guidance;

— the assembler (manufacturer) assumes the responsibility for the correct assembly of the product in accordance with the instructions for manufacturing/assembling the product and installation guidance notified to him by the system house;

— the instructions for manufacturing/assembling the product and installation guidance notified to the assembler (manufacturer) by the system house are an integral part of the assembler's Factory Production Control system and are referred to in the determination of the product type report;

— the assembler is able to provide documented evidence that the combination of components he is using, and his way of manufacturing, correspond to the one for which the system house has obtained the determination of the product type report (he needs to keep a copy of the system house's determination of the product type report);

— regardless the possibility of referring, on the basis of the agreement signed with the system house, to the latter's responsibility and liability under private law, the assembler remains responsible for the product being in compliance with the declared performances, including both the design and the manufacture of the product, which is given when he affixes the regulatory marking on his product.

6.3 Factory production control

6.3.1 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.

All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures.

This factory production control system documentation shall ensure a common understanding of the evaluation of the constancy of performance and enable the achievement of the required product performances and the effective operation of the production control system to be checked. Factory production control therefore brings together operational techniques and all measures allowing maintenance and control of the compliance of the product with the declared performances of the essential characteristics.

In case the manufacturer has used shared or cascading product type results, the FPC shall also include the appropriate documentation as foreseen in 6.2.4 and 6.2.5.

6.3.2 Requirements

6.3.2.1 General

The manufacturer is responsible for organizing the effective implementation of the FPC system in line with the content of this product standard. Tasks and responsibilities in the production control organization shall be documented and this documentation shall be kept up-to-date.

The responsibility, authority and the relationship between personnel that manages, performs or verifies work affecting product constancy, shall be defined. This applies in particular to personnel that need to initiate actions preventing product non-constancies from occurring, actions in case of non-constancies and to identify and register product constancy problems.

Personnel performing work affecting the constancy of performance of the product shall be competent on the basis of appropriate education, training, skills and experience for which records shall be maintained.

In each factory the manufacturer may delegate the action to a person having the necessary authority to:

— identify procedures to demonstrate constancy of performance of the product at appropriate stages;

— identify and record any instance of non-constancy;

— identify procedures to correct instances of non-constancy.

The manufacturer shall draw up and keep up-to-date documents defining the factory production control. The manufacturer's documentation and procedures should be appropriate to the product and manufacturing process. The FPC system should achieve an appropriate level of confidence in the constancy of performance of the product. This involves:

a) the preparation of documented procedures and instructions relating to factory production control operations, in accordance with the requirements of the technical specification to which reference is made;

b) the effective implementation of these procedures and instructions;

c) the recording of these operations and their results;

d) the use of these results to correct any deviations, repair the effects of such deviations, treat any resulting instances of non-conformity and, if necessary, revise the FPC to rectify the cause of non-constancy of performance.

Where subcontracting takes place, the manufacturer shall retain the overall control of the product and ensure that he receives all the information that is necessary to fulfill his responsibilities according to this European standard.

If the manufacturer has part of the product designed, manufactured, assembled, packed, processed and/or labelled by subcontracting, the FPC of the subcontractor may be taken into account, where appropriate for the product in question.

The manufacturer who subcontracts all of his activities may in no circumstances pass the above responsibilities on to a subcontractor.

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

6.3.2.2 Equipment

6.3.2.2.1 Testing

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

6.3.2.2.2 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.

6.3.2.3 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.

6.3.2.4 Traceability and marking

Individual septic tank shall be identifiable and traceable with regard to their production origin. The manufacturer shall have written procedures ensuring that processes related to affixing traceability codes and/or markings are inspected regularly.

6.3.2.5 Controls during manufacturing process

The manufacturer shall plan and carry out production under controlled conditions.

6.3.2.6 Product testing and evaluation

The manufacturer shall establish procedures to ensure that the stated values of the characteristics he declares are maintained. The characteristics, and the means of control, are:

Table 2 — Minimum frequency of FPC testing for the septic tank

Name of characteristic	Test method or verification	Minimum frequency of test
Inlets, outlets and connections	According to EN 12566–1:2016, 4.1.1	1/100 units or minimum 1/week
Overall dimensions	According to EN 12566–1:2016, 4.1.2 and 4.1.3	1/100 units or minimum 1/week
Structural Behaviour	According to EN 12566–1:2016, 5.1	1/100 units or minimum 1/week
Watertightness	According to EN 12566–1:2016, 5.2 and Annex A	1/200 units or minimum 1/month
Hydraulic efficiency	According to EN 12566–1:2016, 5.3	Every delivery of raw material and components
Access	According to EN 12566–1:2016, 4.6	1/100 units or minimum 1/week
Durability	Check list of raw material and components	Every delivery of raw material and components
Reaction to fire	Check list of raw material and components	Every delivery of raw material and components
Release of dangerous substances	Check list of raw material and components	Every delivery of raw material and components
NOTE It is understood that the week and the month are a week of production or a month of production.		

6.3.2.7 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.

6.3.2.8 Corrective action

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

6.3.2.9 Handling, storage and packaging

The manufacturer shall have procedures providing methods of product handling and shall provide suitable storage areas preventing damage or deterioration.

6.3.3 Product specific requirements

The FPC system shall address this European Standard and ensure that the products placed on the market comply with the declaration of performance.

The FPC system shall include a product specific FPC, which identifies procedures to demonstrate compliance of the product at appropriate stages, i.e.:

a) the controls and tests to be carried out prior to and/or during manufacture according to a frequency laid down in the FPC test plan; and/or

b) the verifications and tests to be carried out on finished products according to a frequency laid down in the FPC test plan.

If the manufacturer uses only finished products, the operations under b) shall lead to an equivalent level of compliance of the product as if FPC had been carried out during the production.

If the manufacturer carries out parts of the production himself, the operations under b) may be reduced and partly replaced by operations under a). Generally, the more parts of the production that are carried out by the manufacturer, the more operations under b) may be replaced by operations under a).

In any case the operation shall lead to an equivalent level of compliance of the product as if FPC had been carried out during the production.

NOTE Depending on the specific case, it can be necessary to carry out the operations referred to under a) and b), only the operations under a) or only those under b).

The operations under a) refer to the intermediate states of the product as on manufacturing machines and their adjustment, and measuring equipment etc. These controls and tests and their frequency shall be chosen based on product type and composition, the manufacturing process and its complexity, the sensitivity of product features to variations in manufacturing parameters etc.

The manufacturer shall establish and maintain records that provide evidence that the production has been sampled and tested. These records shall show clearly whether the production has satisfied the defined acceptance criteria and shall be available for at least three years.

6.3.4 Initial inspection of factory and of FPC

For reaction to fire, for system 1+, 1 and 2+, initial inspection of factory and of FPC shall be carried out when the production process has been finalized and in operation. The factory and FPC documentation shall be assessed to verify that the requirements of 6.3.2 and 6.3.3 are fulfilled.

During the inspection it shall be verified:

a) that all resources necessary for the achievement of the product characteristics included in this European standard are in place and correctly implemented; and

b) that the FPC-procedures in accordance with the FPC documentation are followed in practice; and

c) that the product complies with the product type samples, for which compliance of the product performance to the DoP has been verified.

All locations where final assembly or at least final testing of the relevant product is performed, shall be assessed to verify that the above conditions a) to c) are in place and implemented. If the FPC system

covers more than one product, production line or production process, and it is verified that the general requirements are fulfilled when assessing one product, production line or production process, then the assessment of the general requirements does not need to be repeated when assessing the FPC for another product, production line or production process.

All assessments and their results shall be documented in the initial inspection report.

6.3.5 Continuous surveillance of FPC

For reaction to fire, for system 1+, 1 and 2+, surveillance of the FPC shall be undertaken once every five years. The surveillance of the FPC shall include a review of the FPC test plan(s) and production processes(s) for each product to determine if any changes have been made since the last assessment or surveillance. The significance of any changes shall be assessed.

Checks shall be made to ensure that the test plans are still correctly implemented and that the production equipment is still correctly maintained and calibrated at appropriate time intervals.

The records of tests and measurement made during the production process and to finished products shall be reviewed to ensure that the values obtained still correspond with those values for the samples submitted to the determination of the product type and that the correct actions have been taken for non-compliant products.

6.3.6 Procedure for modifications

If modifications are made to the product, production process or FPC system that could affect any of the product characteristics declared according to this standard, then all the characteristics for which the manufacturer declares performance, which may be affected by the modification, shall be subject to the determination of the product type, as described in 6.2.1.

Where relevant, a re-assessment of the factory and of the FPC system shall be performed for those aspects, which may be affected by the modification.

All assessments and their results shall be documented in a report.

6.3.7 One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity

The septic tank produced as a one-off, prototypes assessed before full production is established, and products produced in very low quantities (not more than 1 per year) shall be assessed as follows.

For type assessment, the provisions of 6.2.1, 3rd paragraph apply, together with the following additional provisions:

— in case of prototypes, the test samples shall be representative of the intended future production and shall be selected by the manufacturer;

— on request of the manufacturer, the results of the assessment of prototype samples may be included in a certificate or in test reports issued by the involved third party.

The FPC system of one-off products and products produced in very low quantities shall ensure that raw materials and/or components are sufficient for production of the product. The provisions on raw materials and/or components shall apply only where appropriate. The manufacturer shall maintain records allowing traceability of the product.

For prototypes, where the intention is to move to series production, the initial inspection of the factory and FPC shall be carried out before the production is already running and/or before the FPC is already in practice. The following shall be assessed:

— the FPC-documentation; and

— the factory.

In the initial assessment of the factory and FPC it shall be verified:

a) that all resources necessary for the achievement of the product characteristics included in this European standard will be available; and

b) that the FPC-procedures in accordance with the FPC-documentation will be implemented and followed in practice; and

c) that procedures are in place to demonstrate that the factory production processes can produce a product complying with the requirements of this European standard and that the product will be the same as the samples used for the determination of the product type, for which compliance with this European standard has been verified.

Once series production is fully established, the provisions of 6.3 shall apply.

7 Classification and designation

Septic tank according to this standard shall be classified and designated according to EN 12566-1.

8 Marking, labelling and packaging

8.1 Marking

Products according to this standard shall be marked with:

a) manufacturer and product identification;

b) number of this standard: EN 12566-4;

c) type of material;

d) nominal size;

e) date of manufacture;

f) name of laboratory;

g) test report number (where appropriate).

NOTE Where ZA.3 covers the same requirements as this clause, the requirements of this clause are met.

8.2 Installation instructions

The manufacturer shall provide the complete detailed list of the constitutive components of the kit.

The manufacturer shall supply handling and installation instructions with each septic tank written in the language accepted in the member state in which the septic tank is intended to be installed. These instructions shall provide methods for plant installation (height of backfill cover), material and type (including thickness) of coating (where coating has been applied), pipe connections, watertightness confirmation, and commissioning and start-up procedures.

8.3 Operating and maintenance instructions

The manufacturer shall provide with each septic tank comprehensive operation and maintenance instructions, written in the language accepted in the member state in which the septic tank is intended to be installed.

The manufacturer shall write clear instructions of safety so the operator shall pay attention that nobody falls in the plant during the maintenance.

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/118 "Wastewater engineering products" 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 prefabricated septic plants 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 product and intended use

Product: Septic tanks assembled *in situ* from prefabricated kits **Intended use:** To be used outside buildings for faecal water and organic effluent for a population up to 50 PT			
Essential Characteristics	**Clauses in this standard related to essential characteristics**	**Regulatory classes**	**Notes**
Hydraulic efficiency	EN 12566–1:2016, 4.4	-	a) Tested according to 4.4 of EN 12566–1:2016 and Annex B; and b) expressed in grams of beads collected.
Watertightness	EN 12566–1:2016, 4.3	-	a) Tested according to Annex A; and b) expressed as "Pass/Fail" together with the test method used.
Structural behaviour	EN 12566–1:2016, 4.2	-	Calculation or test methods in Annex D
Durability	EN 12566–1:2016, 4.7	-	a) Tested according to 4.7 of EN 12566–1:2016 (as appropriate) and the material used; and b) expressed as "Pass/Fail".
Reaction to fire	EN 12566–1:2016, 4.8	A1 to F	a) Either classified and declared without need for testing (CWT); or b) classified and declared, on the basis of the material of the lowest class, in accordance with EN 13501–1 using the relevant test method(s) specified therein.
Release of dangerous substance	EN 12566–1:2016, 4.9	-	As relevant, according to 4.9 of EN 12566–1:2016

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 of attestation of conformity of prefabricated septic plants

ZA.2.1 System(s) of AVCP

The AVCP system(s) of kits and elements for wastewater treatment plants indicated in Table ZA.1, established by EC Decision(s) 97/464/EC of 27 June 1997 (OJEU L198 of 25.7.1997) as amended by EC

decision 2004/663/EC of 20 September 2004 (OJEU L302 of 29.9.2004) 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

Product(s)	Intended use(s)	Level(s) or class(es) of performance	AVCP system(s)
Kits and elements for wastewater treatment plants*	To be used outside buildings for faecal water and organic effluent	-	3
	For all uses when subject to regulations on reaction to fire	A1*, A2*, B*, C*	1
		A1**, A2**, B**, C**, D, E	3
		(A1 to E)***, F	4
System 1: See Regulation (EU) No. 305/2011 (CPR) Annex V, 1.2. System 3: See Regulation (EU) No. 305/2011 (CPR) Annex V, 1.4. System 4: See Regulation (EU) No. 305/2011 (CPR) Annex V, 1.5. * Products/ materials for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material). ** Products/ materials not covered by footnote (*). *** Products/ materials that do not require to be tested for reaction to fire (e.g. Products/materials of class A1 according to the Decision 96/603/EC, as amended).			

NOTE Septic tanks assembled *in situ* from prefabricated kits for a population up to 50 PE are considered kits and elements for wastewater treatment plants.

The AVCP of the kits and elements for wastewater treatment plants in Table ZA.1 shall be according to the AVCP procedures indicated in Table(s) ZA.3 to ZA.5 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 kits and elements for wastewater treatment plants under system 1

Tasks		Content of the task	AVCP clauses to apply
Tasks for the manufacturer	Factory production control (FPC)	All essential characteristics of Table ZA.1 relevant for the intended use which are declared	6.3.1, 6.3.2, 6.3.3, 6.3.6, 6.3.7
	Further testing of samples taken at factory according to the prescribed test plan	Reaction to fire	6.3
Tasks for the notified testing laboratory	Determination of the product-type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation, tabulated values or descriptive documentation of the product	All essential characteristics of Table ZA.1 relevant for the intended use which are declared except reaction to fire	6.2
	Initial inspection of manufacturing plant and of FPC	Reaction to fire	6.3.4
	Continuous surveillance, assessment and evaluation of FPC	Reaction to fire	6.3.5

Table ZA.4 — Assignment of AVCP tasks for kits and elements for wastewater treatment plants under system 3

Tasks		Content of the task	AVCP clauses to apply
Tasks for the manufacturer	Factory production control (FPC)	All essential characteristics of Table ZA.1 relevant for the intended use which are declared	6.3.1, 6.3.2, 6.3.3, 6.3.6, 6.3.7
Tasks for a notified testing laboratory	Determination of the product-type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation, tabulated values or descriptive documentation of the product	All essential characteristics of Table ZA.1 relevant for the intended use which are declared	6.2

Table ZA.5 — Assignment of AVCP tasks for kits and elements for wastewater treatment plants under system 4

Tasks		Content of the task	AVCP clauses to apply
Tasks for the manufacturer	Factory production control (FPC)	All essential characteristics of Table ZA.1 relevant for the intended use which are declared	6.3.1, 6.3.2, 6.3.3, 6.3.6, 6.3.7
	Determination of the product-type on the basis of type testing, type calculation, tabulated values or descriptive documentation of the product	All essential characteristics of Table ZA.1 relevant for the intended use which are declared	6.2

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:

In case of products under system 1

— the factory production control and further testing of samples taken at the factory according to the prescribed test plan, carried out by the manufacturer; and

— the certificate of constancy of performance issued by the notified product certification body on the basis of determination of the product type on the basis of type testing (including sampling), type calculation, tabulated values or descriptive documentation of the product; initial inspection of the manufacturing plant and of factory production control and continuous surveillance, assessment and evaluation of factory production control.

In case of products under system 3

— the factory production control carried out by the manufacturer; and

— the determination of the product-type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation, tabulated values or descriptive documentation of the product, carried out by the notified testing laboratory.

In case of products under system 4

— 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 Regulation (EU) No 574/2014.

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 an example of a filled-in DoP for prefabricated septic tanks

DECLARATION OF PERFORMANCE

No. 0012013-07-14

1. Unique identification code of the product-type:

   Septic tanks assembled *in situ* from prefabricated kits BWV 714 (concrete)

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

   BWV 714

from 4 to 50 PT

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

   To be used outside buildings for faecal water and organic effluent for a population up to 50 PE

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

   AnyCo SA,

   PO Box 21

   B-1050 Brussels, Belgium

   Tel. +32987654321

   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:

   Anyone Ltd

   Flower Str. 24

   West Hamfordshire

   UK-589645 United Kingdom

   Tel. +44987654321

   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 3 for all essential characteristics except reaction to fire

   System 4 for reaction to fire

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

   Notified body number 0001 performed product type testing under system 3 and issued test report 12345/2013.

8. No European Technical Assessment has been issued for this product.

9. Declared performance

Essential characteristics	**Performance**	**Harmonized technical specification**
Reaction to fire	Class A1	EN 12566–4:2016
Hydraulic efficiency	XXX g of beads	
Nominal capacity	3 m^3	
Watertightness	Pass	
Crushing resistance	xxx kN	
Durability	Pass	
Release of dangerous substance	NPD	

10. 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)

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 kits and elements for wastewater treatment plants;

— 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 dated reference to the harmonized technical specification applied as it appears in OJEU;

— the identification number of the notified body;

— 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 under system 3 (all characteristics except reaction to fire) and 4 (for reaction to fire).

CE **9876**	*"CE marking, consisting of the "CE"-symbol* *Identification number of the notified test laboratory*
Any Co Ltd, P.O. Box 21, B–1050 **16** **0012013–07–14**	*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*
EN 12566–4:2016 Septic tanks assembled *in situ* from prefabricated kits — Product's reference code: "BWV 714" — Material: CONCRETE	*No. of European Standard applied, as referenced in OJEU* *Unique identification code of the product-type* *Intended use of the product as laid down in the European Standard applied* *Level or class of the performance declared*

Hydraulic efficiency	XXX g of beads
Nominal capacity	3 m^3
Watertightness: (water test)	Pass
Crushing resistance	xxx kN
Durability	Pass
Reaction to fire	A1
Release of dangerous substances	NPD

Figure ZA.1 — Example CE marking information of products under AVCP system 3 (all characteristics except reaction to fire) and 1 (reaction to fire)

Bibliography

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

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