SLOVENSKI STANDARD
SIST EN 12566-4:2017

01-februar-2017

Nadomešča:
SIST EN 12566-4:2008

Male čistilne naprave do 50 PE - 4. del: Montažne greznice, sestavljene na mestu vgradnje iz predizdelanih kompletov

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

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

Petites installations de traitement des eaux usées pour une population totale équivalente (PTE) jusqu'à 50 habitants - Partie 4 : Fosses septiques assemblées sur site à partir d'un kit d'éléments préfabriqués

Ta slovenski standard je istoveten z: **EN 12566-4:2016**

ICS:

13.060.30	Odpadna voda	Sewage water

SIST EN 12566-4:2017 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 12566-4

August 2016

ICS 13.060.30

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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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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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of an identical text or by endorsement, at the latest by February 2017, and conflicting national standards shall be withdrawn at the latest by May 2018.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)*;

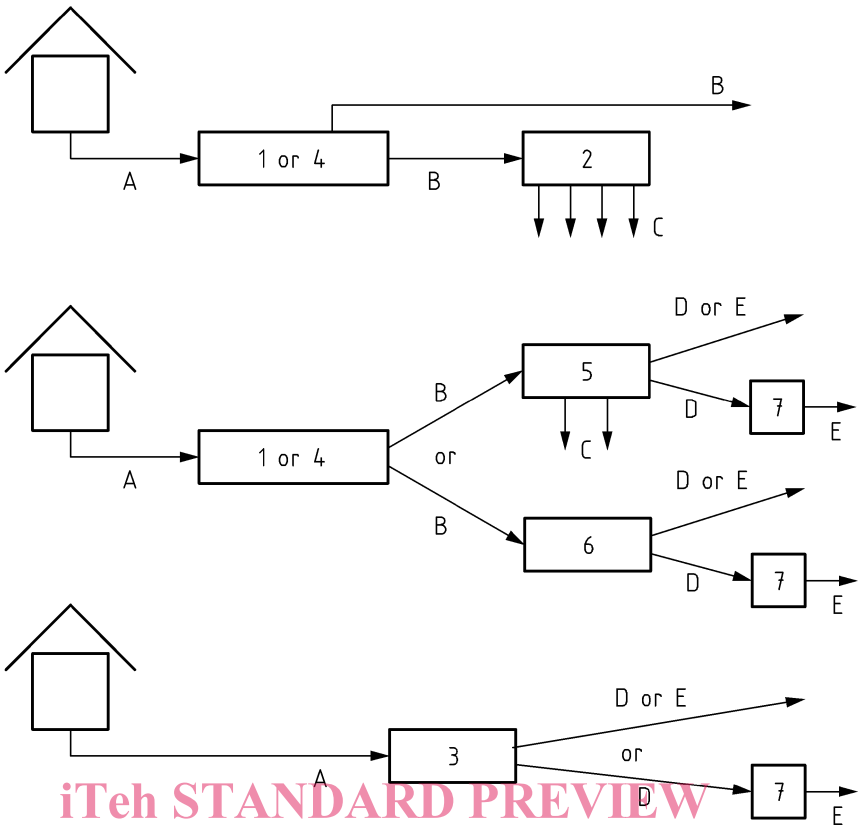
— *Part 6: Prefabricated treatment unit used for septic tank effluent*;

— *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.