

DIN EN 12566-1:2016-12 (E)

Small wastewater treatment systems for up to 50 PT - Part 1: Prefabricated septic tanks

Contents	Page
European foreword.....	6
1 Scope.....	8
2 Normative references.....	8
3 Terms and definitions	8
4 Product characteristics.....	9
4.1 Dimensions.....	9
4.1.1 Inlets, outlets and connections.....	9
4.1.2 Ventilation	9
4.1.3 Design Basis	9
4.2 Load bearing capacity.....	9
4.3 Watertightness.....	10
4.3.1 General.....	10
4.3.2 Water test.....	10
4.3.3 Vacuum test.....	10
4.3.4 Pneumatic pressure test.....	10
4.4 Hydraulic efficiency.....	10
4.5 Design.....	10
4.6 Access	10
4.7 Durability.....	11
4.8 Reaction to fire.....	11
4.8.1 General.....	11
4.8.2 Septic tank classified as Class A1 without the need for testing.....	11
4.8.3 Septic tank classified according to the test results.....	12
4.9 Dangerous substances.....	12
5 Testing, assessment and sampling methods	12
5.1 Load bearing capacity.....	12
5.1.1 General.....	12
5.1.2 Load bearing capacity determined by calculation	13
5.1.3 Load bearing capacity determined by testing	13
5.2 Watertightness.....	15
5.3 Hydraulic efficiency.....	15
6 Assessment and verification of constancy of performance – AVCP.....	16
6.1 General.....	16
6.2 Type testing.....	16
6.2.1 General.....	16
6.2.2 Test samples, testing and compliance criteria	17
6.2.3 Test reports.....	17
6.2.4 Shared other party results.....	17
6.2.5 Cascading determination of the product type results	18
6.3 Factory production control	19
6.3.1 General.....	19
6.3.2 Requirements.....	20
6.3.3 Product specific requirements.....	23
6.3.4 Initial inspection of factory and of FPC	23
6.3.5 Continuous surveillance of FPC.....	24

6.3.6	Procedure for modifications.....	24
6.3.7	One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity.....	24
7	Classification and designation	25
7.1	Classification	25
7.2	Nominal capacity.....	25
8	Marking, labelling and packaging.....	25
8.1	Marking	25
8.2	Installation instructions.....	26
8.3	Operating and maintenance instructions.....	26
	Annex A (normative) Watertightness and nominal capacity tests	27
A.1	General	27
A.2	Capacity test.....	27
A.2.1	Sample	27
A.2.2	Procedure	27
A.2.3	Expression of results	27
A.3	Watertightness tests.....	27
A.3.1	Selection of the test.....	27
A.3.2	Water test	27
A.3.2.1	Sample	27
A.3.2.2	Procedure	28
A.3.2.3	Expression of results	28
A.3.3	Air permeability vacuum test.....	28
A.3.3.1	Sample	28
A.3.3.2	Procedure	28
A.3.3.3	Expression of results	29
A.3.4	Pneumatic pressure test	29
A.3.4.1	Sample	29
A.3.4.2	Procedure	29
A.3.4.3	Expression of results	30
	Annex B (normative) Hydraulic efficiency test.....	31
B.1	General	31
B.2	Experimental apparatus.....	31
B.3	Synthetic materials used for testing.....	32
B.4	Preparation of test	32
B.5	Test parameters	32
B.6	Procedure	33
B.7	Calculation of test results	33

Annex C (informative) Information for execution.....	34
C.1 Examples for outlet devices.....	34
C.2 Openings in internal walls	35
Annex D (normative) Test methods for structural behaviour	36
D.1 Selection of test method	36
D.2 Concrete septic tank.....	36
D.2.1 Crushing test methods.....	36
D.2.2 Test procedures.....	37
D.2.2.1 Type A test (vertical load).....	37
D.2.2.1.1 Sample.....	37
D.2.2.1.2 Procedure	37
D.2.2.1.3 Expression of results	37
D.2.2.2 Type B test (horizontal load)	38
D.2.2.2.1 Sample.....	38
D.2.2.2.2 Procedure	38
D.2.2.2.3 Expression of results	38
D.2.2.3 Type C test (vertical load)	39
D.2.2.3.1 Sample.....	39
D.2.2.3.2 Procedure	39
D.2.2.3.3 Expression of results	39
D.3 Polyethylene septic tank	39
D.3.1 General.....	39
D.3.2 Vertical load test.....	39
D.3.2.1 Sample	39
D.3.2.2 Procedure.....	40
D.3.2.3 Expression of results.....	40
D.4 Determination of mechanical characteristics of test samples used for calculation	40
D.4.1 Concrete.....	40
D.4.2 Glass Reinforced Plastic.....	41
D.5 Vacuum test for Glass Reinforced Plastic or steel septic tank	41
D.6 Pit test.....	41
D.6.1 Sample	41
D.6.2 Procedure.....	41
D.6.3 Expression of results.....	42
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation	43
ZA.1 Scope and relevant characteristics.....	43

ZA.2	Procedure of attestation of conformity of prefabricated septic tanks	44
ZA.2.1	System(s) of AVCP	44
ZA.2.2	Declaration of performance (DoP)	47
ZA.2.2.1	General	47
ZA.2.2.2	Content	47
ZA.2.2.3	Example of DoP	48
ZA.3	CE marking and labelling	50
	Bibliography	53