

DIN EN 14844:2012-02 (E)

Precast concrete products - Box culverts (includes Amendment A2:2011)

Contents

Page

The numbering of clauses is strictly related to EN 13369:2004 Common rules for precast concrete products, at least for the first three digits. When a clause of EN 13369:2004 is not relevant or included in a more general reference of this standard, its number is omitted and this may result in a gap on numbering." Foreword4

Introduction6

1 Scope7

2 Normative references7

3 Terms and definitions, symbols and abbreviated terms7

3.1 Terms and definitions7

3.2 Symbols and abbreviations7

4 Requirements8

4.1 Material requirements8

4.1.1 General8

4.2 Production requirements8

4.2.1 Concrete production8

4.2.2 Hardened concrete9

4.3 Finished product requirements9

4.3.1 Geometrical properties9

4.3.2 Surface characteristics11

4.3.3 Mechanical resistance11

4.3.7 Durability12

4.3.8 Other requirements12

5 Test methods12

5.1 Tests on concrete12

5.2 Measuring of dimensions and surface characteristics12

5.3 Weight of the products13

6 Evaluation of conformity13

6.2.2 Initial Type Testing13

7 Marking14

8 Technical documentation14

Annex A (informative) Additional information for the design of box culverts15

A.1 Characteristic horizontal load15

A.2 Reinforcement of inner wall faces15

A.3 Stability15

A.4 Horizontal surface loads15

A.5 Deflection of roof slab15

A.6 Differential settlement16

Annex B (normative) Verification by calculation aided by physical testing17

B.1 Introduction17

B.2	Limit of use of this test	17
B.3	Test arrangements	17
B.4	Test criteria	18
B.5	Definition of the dimensional parameters	18
B.6	Definition of the main sections	19
B.7	Determination of the test parameters (wp, wa, F)	19
B.8	Test method	21
B.9	Interpretation of the test results	21
Annex C (informative) Installation		22
C.1	Products/Units	22
C.2	Preparing the site	22
C.3	Bedding	22
C.4	Laying	22
C.5	Backfilling	23
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive		25
ZA.1	Scope and relevant characteristics	25
ZA.2	Procedure(s) for the attestation of conformity of box culvert units	27
ZA.2.1	Systems of attestation of conformity	27
ZA.2.2	EC Certificate and Declaration of conformity	29
ZA.3	CE marking and labelling	30
ZA.3.1	General	30
ZA.3.2	Declaration of geometrical data and material properties (method 1)	32
ZA.3.3	Declaration of product properties (method 2)	34
ZA.3.4	Declaration of compliance with a given design specification provided by the client (method 3a)	36
ZA.3.5	Declaration of compliance with a given design specification provided by the manufacturer according to the client's order (method 3b)	37
Bibliography		40