

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." Foreword		4
Introduction		6
1	Scope	7
2	Normative references	7
3	Terms and definitions, symbols and abbreviated terms	7
3.1	Terms and definitions	7
3.2	Symbols and abbreviations	7
4	Requirements	8
4.1	Material requirements	8
4.1.1	General	8
4.2	Production requirements	8
4.2.1	Concrete production	8
4.2.2	Hardened concrete	9
4.3	Finished product requirements	9
4.3.1	Geometrical properties	9
4.3.2	Surface characteristics	11
4.3.3	Mechanical resistance	11
4.3.7	Durability	12
4.3.8	Other requirements	12
5	Test methods	12
5.1	Tests on concrete	12
5.2	Measuring of dimensions and surface characteristics	12
5.3	Weight of the products	13
6	Evaluation of conformity	13
6.2.2	Initial Type Testing	13
7	Marking	14
8	Technical documentation	14
Annex A (informative) Additional information for the design of box culverts		15
A.1	Characteristic horizontal load	15
A.2	Reinforcement of inner wall faces	15
A.3	Stability	15
A.4	Horizontal surface loads	15
A.5	Deflection of roof slab	15
A.6	Differential settlement	16
Annex B (normative) Verification by calculation aided by physical testing		17
B.1	Introduction	17

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