

Eurocode 6: Design of masonry structures —

**Part 2: Design, selection of materials
and execution of masonry**

**(together with United Kingdom
National Application Document)**

ICS 91.010.30; 91.080.30

Committees responsible for this Draft for Development

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Association of Consulting Engineers
Autoclaved Aerated Concrete Products Association
Brick Development Association
British Ceramic Research Ltd.
British Masonry Society
British Precast Concrete Federation Ltd.
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Concrete Block Association
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Institution of Structural Engineers
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Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
Text of National Application Document	iii
Text of ENV 1996-2	2

National foreword

This Draft for Development was prepared by Subcommittee B/525/6 and is the English language version of ENV 1996-2:1998, *Eurocode 6: Design of masonry structures — Part 2: Design, selection of materials and execution of masonry*, published by the European Committee for Standardization (CEN). This Draft for Development also includes the United Kingdom (UK) National Application Document (NAD) to be used with the ENV for the design of masonry structures to be constructed in the UK.

ENV 1996-2:1998 results from a programme of work sponsored by the European Commission to make available a common set of rules for the design of building and civil engineering works.

This publication is not to be regarded as a British Standard.

An ENV is made available for provisional application during a trial period of use of three years, but does not have the status of a European Standard. The aim is to use the experience gained to modify the ENV so that it can be adopted as a European Standard. The publication of this ENV and its National Application Document should be considered to supersede any reference to a British Standard in previous DD ENV Eurocodes concerning the subject covered by these documents.

The values for certain parameters in the ENV Eurocodes may be set by individual CEN Members so as to meet the requirements of national regulations. These parameters are designated by □ (boxed values) in the ENV.

During the ENV period of validity, reference should be made to the supporting documents listed in the NAD. The purpose of the NAD is to provide essential information, particularly in relation to safety, to enable the ENV to be used for masonry structures constructed in the UK and the NAD takes precedence over corresponding provisions in the ENV.

Approved Document A to The Building Regulations 1991 [1], draws designers' attention to the potential use of ENV Eurocodes as an alternative approach to Building Regulation compliance. ENV 1996-2 has been thoroughly examined over a period of several years and is considered to offer such an alternative approach, when used in conjunction with this NAD.

Compliance with ENV 1996-2:1998 and this NAD does not in itself confer immunity from legal obligations.

Users of this document are invited to comment on its technical content, ease of use and any ambiguities or anomalies. These comments will be taken into account when preparing the UK national response to CEN to the question of whether the ENV can be converted to an EN.

Comments should be sent in writing to BSI, British Standards House, 389 Chiswick High Road, London W4 4AL, quoting the document reference, the relevant clause and, where possible, a proposed revision.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to xii, the ENV title page, pages 2 to 54, an inside back cover and a back cover.

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National Application Document

**for use in the UK with
ENV 1996-2:1998**

Contents of
National Application Document

	Page
Introduction	v
1 Scope	v
2 Normative references	v
3 Boxed values for parameters used in ENV 1996-2:1998	v
4 Reference codes: Actions codes	vii
5 Reference documents and standards	vii
6 Additional recommendations	vii
Bibliography	xii
Table 1 — Boxed values in ENV 1996-2:1998	vi
Table 2 — Equivalence between micro conditions of exposure (classes) as described in Table A.1 of ENV 1996-2 and exposure categories in BS 5628-2:2000, 10.1 and BS 5628-3:2001, 5.6 and Table 13	viii

Introduction

This National Application Document (NAD) was prepared by Subcommittee B/525/6, Use of masonry. It has been developed from a textual examination of ENV 1996-2:1998.

It should be noted that this NAD, in common with ENV 1996-2 and supporting European Standards, uses a comma (,) where a decimal point (.) would be traditionally used in the UK.

1 Scope

This NAD provides information to enable ENV 1996-2:1998 to be used for the design of buildings and civil engineering works to be constructed in the UK.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of this NAD. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references, the latest edition of the publication referred to applies.

BS 3921:1985, *Specification for clay bricks*.

BS 4551-2, *Methods of testing mortars, screeds and plasters — Part 2: Chemical analysis and aggregate grading*.

BS 5628-1:1992, *Code of practice for use of masonry — Part 1: Structural use of unreinforced masonry*.

BS 5628-2:2000, *Code of practice for use of masonry — Part 2: Structural use of reinforced and prestressed masonry*.

BS 5628-3:2001, *Code of practice for use of masonry — Part 3: Materials and components, design and workmanship*.

BS 6477, *Specification for water repellents for masonry surfaces*.

BS 8104:1992, *Code of practice for assessing exposure of walls to wind-driven rain*.

DD ENV 1996-1-1:1996, *Eurocode 6 — Design of masonry structures — Part 1-1: General rules for buildings — Rules for reinforced and unreinforced masonry (together with United Kingdom National Application Document)*.

3 Boxed values for parameters used in ENV 1996-2:1998

Where either designated or undesignated boxed values are cited in the text or in equations they should be as given in Table 1 of this NAD.

Table 1 — Boxed values in ENV 1996-2:1998

Location in ENV 1996-2:1998	Description of parameter	Boxed value in ENV 1996-2:1998	UK value
2.2.5 (2)	Distance of the drip line of copings and sills from the face of the masonry	40 mm	40 mm
2.3.8.2.2 (1) Table 2.2	Maximum recommended horizontal spacing of vertical movement joints in external unreinforced, non-loadbearing walls built using: — clay masonry; — calcium silicate masonry; — aggregate concrete masonry; — autoclaved aerated concrete masonry; — natural stone masonry	12 m 8 m 6 m 6 m 12 m	15 m 9 m 9 m 6 m 20 m
2.3.8.2.2 (1)	Maximum distance of the first joint from a restrained end of a wall	0,5 times value given in Table 2.2	0,5 times value given in Table 2.2
2.4.2.3 (3)	Minimum air cavity width in a cavity wall	50 mm	50 mm
2.4.2.6 (1)	Minimum cavity width in a cavity wall with full fill insulation	80 mm	50 mm
2.4.2.6 (2)	Maximum recess depth of joints in fully filled insulated cavity walls	5 mm	5 mm
2.4.2.6 (3)	Minimum air cavity width in a cavity wall with partial fill insulation	50 mm	50 mm
3.6.1 (2)	Maximum overhang of the first course of masonry over the edge of a floor or foundation slab.	15 mm	15 mm
3.6.3 (1) Table 3.1	Maximum permissible deviations for masonry elements: — verticality: — in one storey; — in total building height; — vertical alignment; — straightness: — in any 1 m; — in any 10 m; — thickness: — of wall leaf (the greater of); — overall cavity wall	±20 mm ±50 mm ±20 mm ±5 mm ±20 mm ±5 mm or ±5 % ±10 mm	±20 mm ±50 mm ±20 mm ±5 mm ±20 mm ±5 mm or ±5 % ±10 mm
3.7.3 (6)	Maximum spacing of weepholes (open perpend joints)	1,5 m	1 m
3.7.4.2 (1)	Depth of raking for pointed mortar joints	10 mm to 15 mm	10 mm to 25 mm
3.7.4.3 (1)	Maximum depth of recess for joints in walls less than 200 mm thick	5 mm	5 mm ^a
3.7.4.3 (2)	Maximum depth of recess for joints in walls made with perforated units: (fraction of shell thickness)	$\frac{1}{3}$	$\frac{1}{3}$
3.7.5 (3)	Minimum overlap of sealed joints in damp proof courses and membranes	150 mm	100 mm
3.7.6.1 (2)	Maximum horizontal spacing of wall ties Maximum vertical spacing of wall ties Maximum vertical spacing of shear ties	900 mm 600 mm 600 mm	900 mm 450 mm 450 mm
3.7.6.2 (2)	Maximum horizontal spacing of shear ties	900 mm	450 mm

^a In the UK the limit applies to all wall thicknesses

4 Reference codes: Actions codes

To assess exposure of walls to wind driven rain, BS 8104:1992 should be followed.

5 Reference documents and standards

5.1 Reference documents

Where reference is made in ENV 1996-2 and in this NAD to national regulations, such references refer to Building and Buildings [1] in England and Wales, to Building and Buildings [2] in Scotland and to Building Regulations [3] in Northern Ireland.

5.2 Reference standards

The supporting standards to be used, including materials specifications and standards for construction should be those given in Table 4 of the NAD to ENV 1996-1-1:1995 or those referred to in clause 2 of the NAD to ENV 1996-1-1:1995.

6 Additional recommendations

6.1 General

In all cases, if no reference is given to the NAD to ENV 1996-1-1 and no alternative specification or guidance is given then the relevant clause in ENV 1996-2 should be followed to be in accordance with British building regulations.

6.2 Section 2: Design considerations

a) Subclause 2.1.2

Table 2 of this NAD gives guidance on the equivalence between present UK exposure categories and the system in ENV 1996-2:1998. Where an exposure class is specified in accordance with ENV 1996-2:1998, **2.1.2** the designer should look up the equivalent category in Table 2 of this NAD and should then select materials in accordance with BS 5628-2:2000, clause 6 and BS 5628-3:2001, **5.6.6**, **5.6.7** and **5.7**.

NOTE 1 This is a very complex area since the provisions have to deal with two main situations:

- a) masonry itself with its surfaces exposed to various climatic conditions; and
- b) metal reinforcement and connecting components buried within masonry with its surfaces exposed to various climatic conditions.

NOTE 2 Most masonry materials are porous and can be affected by water, acidified water, soluble salts, freezing of absorbed water, mechanical attrition by water, air and solid matter carried in water and air. Processes can occur both at the surface and within the pore structure.

NOTE 3 Metals are not porous so are unaffected by frost or salt crystallisation processes but are susceptible to surface corrosion in the presence of water and oxygen.

NOTE 4 ENV 1996-2 designates five main exposure classes with the two most common classes divided into two subclasses in an informative annex. These classes are used as the basis of a performance specification system for materials. BS 5628 contains specific recommendations regarding masonry units, mortars and ancillary components but gives similar general guidance to ENV 1996-2 for using reinforcing steel.

b) Subclause 2.2.2.1, item (1)

Pending the implementation of EN 771, Table 2 of this NAD should be used to determine the equivalent exposure class.

c) Subclause 2.2.2.2, item (1)

Pending the implementation of EN 771, Table 2 of this NAD should be used for the selection of masonry units with respect to freeze–thaw resistance.

d) Subclause 2.2.2.3, item (1)

Pending the implementation of EN 771, Table 2 of this NAD should be used for the selection of masonry units with respect to sulfate resistance.

Table 2 — Equivalence between micro conditions of exposure (classes) as described in Table A.1 of ENV 1996-2 and exposure categories in BS 5628-2:2000, 10.1 and BS 5628-3:2001, 5.6 and Table 13

ENV 1996-2	Micro condition of masonry	Examples of masonry in this condition	BS 5628-2:2000	BS 5628-3:2001
MX1	In a dry environment			
		Interior of buildings for normal habitation and for offices, including the inner leaf of external cavity walls not likely to become damp. Rendered masonry in exterior walls, not exposed to moderate or severe driving rain, and isolated from damp in adjacent masonry or materials.	E1	D, E
MX2	Exposed to moisture or wetting			
MX2.1	Exposed to moisture but not exposed to freeze–thaw cycling or external sources of significant levels of sulfates or aggressive chemicals	Internal masonry exposed to high levels of water vapour, such as in a laundry. Masonry exterior walls sheltered by overhanging eaves or coping, not exposed to severe driving rain or frost. Masonry below frost zone in well drained non-aggressive soil.	E1	A1, C1, D, E, F1, G, H1, H3, J1, K1, L1, L2 and L3
MX2.2	Exposed to severe wetting but not exposed to freeze–thaw cycling or external sources of significant levels of sulfates or aggressive chemicals	Masonry not exposed to frost or aggressive chemicals, located: in exterior walls with cappings or flush eaves; in parapets; in freestanding walls; in the ground; under water.	E2	A2, L1, L2 and L3
MX3	Exposed to wetting plus freeze–thaw cycling			
MX3.1	Exposed to moisture and freeze–thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals.	Masonry as class MX2. 1 exposed to freeze–thaw cycling.	E3	A1, C1 D, F1, G, H1, H3, J1, K1, L1, L2 and L3
MX3.2	Exposed to severe wetting and freeze–thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals.	Masonry as class MX2.2 exposed to freeze–thaw cycling.	E3	A3, B2, C2, F2, H2, I, J2 and K2
MX4	Exposed to saturated salt air or sea water			
		Masonry in a coastal area	E4	None, seek specialist advice.
MX5	In an aggressive chemical environment			
		Masonry in contact with natural soils or filled ground or groundwater, where moisture and sulfates are present. Masonry in contact with highly acidic soils, contaminated ground or groundwater. Masonry near industrial areas where aggressive chemicals are airborne.	E4	None, seek specialist advice.
NOTE In deciding the exposure of masonry the effect of applied finishes and protective claddings should be taken into account.				

e) *Subclause 2.2.2.4, item (1)*

Pending the implementation of EN 771, Table 2 of this NAD should be used for the selection of clay units in accordance with BS 3921 with respect to active soluble salts content.

f) *Subclause 2.2.2.5, item (1)*

Pending the implementation of EN 771, Table 2 of this NAD should be used in the selection of materials with respect to resistance to chloride attack.

g) *Subclause 2.2.3.1, items (1), (2), (4) and (5)*

Pending the implementation of EN 998-2, Table 2 of this NAD should be used in the selection of general purpose mortar. There are no specific recommendations on thin layer or light weight mortars in BS 5628 thus selection should be on the basis of an equivalent performance to general purpose mortars with respect to structural properties and durability.

NOTE Materials meeting suitable certification such as a European Technical Approval or a National Technical Approval [1] may be deemed to exhibit equivalent performance to general purpose mortars with respect to structural properties and durability.

h) *Subclause 2.2.3.1, items (3) and (5)*

Pending the implementation of EN 206, Table 2 of this NAD (and BS 5628-2:2000, clause 6) should be used for concrete infills.

i) *Subclause 2.2.3.1, item (6)*

Pending the implementation of EN 771, where adhesion between masonry units and mortar is a particular design requirement, BS 5628-1:1992, clause 24 should be used.

NOTE Such performance characteristics may be checked in the laboratory, if necessary, by use of the wallette method given in BS 5628-1:1992, A.3 or for site tests using the method given in BRE Digest 360 [4].

j) *Subclause 2.2.4.1, item (1)*

Pending the implementation of EN 845-1 for wall ties, straps, brackets and joist hangers; EN 845-2 for lintels and EN 845-3 for bed joint reinforcement, products conforming to the British Standards listed in Table 4 of the NAD to ENV 1996-1-1 give equivalent performance and should be used.

k) *Subclause 2.2.4.1, item (2)*

The appropriate materials and protection systems in relation to exposure classes defined in ENV 1996-2 that should be used are given in Table 2 of this NAD.

l) *Subclause 2.2.4.2*

Materials and protection systems for cavity wall ties should be chosen in accordance with BS 5628-3:2001, 5.3.5 on the basis that walls in low-rise buildings on sheltered sites are exposed at level MX2, walls in low-rise buildings on exposed sites and all walls of buildings exceeding three stories are exposed at level MX3, and that unlined chimneys are exposed at level MX5.

m) *Subclause 2.2.4.3*

The materials and protection systems for tension straps, joist hangers and brackets should be chosen in accordance with BS 5628-3:2001, Table 2 on the basis that internal walls and the inner leaves of cavity walls are exposed at level MX1 and the outer leaves of cavity walls and externally exposed solid walls are exposed at level MX3.

n) *Subclause 2.2.4.4*

The materials and protection systems for lintels should be chosen in accordance with BS 5628-3:2001, Table 2 for all exposure conditions.

o) *Subclause 2.2.4.5*

The materials and protection systems for reinforcement for structural use should be chosen from BS 5628-2:2000, Table 4 for the appropriate exposure condition chosen from Table 2 of this NAD.

The materials and protection systems for bed joint reinforcement for non-structural use should be chosen from BS 5628-3:2001, Table 2 on the basis that internal walls and the inner leaves of cavity walls are exposed at level MX1 and the outer leaves of cavity walls and externally exposed solid walls are exposed at level MX3.

p) *Subclause 2.3.1.1*

Only the normal category and the special category mentioned in BS 5628-1:1992, **27.2.2** should be used. These two categories are equivalent, to categories A and B in ENV 1996-2:1998, respectively. Category C should not be used in the UK.

q) *Subclause 2.3.3, item (3)*

Pending the implementation of EN 1052-2, EN 1052-5 (flexure) and EN 1052-3 (shear), equivalent test methods are listed in Table 4 of the NAD to ENV 1996-1-1.

r) *Subclause 2.3.7.2, item (2)*

In the absence of test data, the values for the coefficient of thermal expansion and other movement characteristics of unreinforced masonry should be taken from Table 3 of the NAD to ENV 1996-1-1.

s) *Subclause 2.3.8.3*

Sealants for incorporation within masonry should conform to the recommendations given in BS 5628-3:2001, **4.8**. The installation for movement joints should be in accordance with BS 5628-3:2001, **5.4.4**.

t) *Subclause 2.3.12*

Water repellent agents for use with masonry should conform to BS 6477.

u) *Subclause 2.4.2.2*

The design of fair faced single leaf walls to resist wind driven rain should be in accordance with BS 5628-3:2001, **5.5.4.2.3** and appropriate columns of Table 12 of BS 5628-3:2001.

v) *Subclause 2.4.2.3*

The design of cavity walls to resist wind driven rain should be in accordance with BS 5628-3:2001, **5.5.4.2.4** and should take into account of BS 5628-3:2001, **5.5.2.4.5** to **5.5.2.4.10**. Design details for suitable damp-proof courses, cavity trays and water barriers of various types are given in BS 5628-3:2001, **5.5.5**.

w) *Subclause 2.4.2.4*

Design details for suitable damp-proof courses, cavity trays and water barriers of various types suitable for veneer walls are given in BS 5628-3:2001, **5.5.5**.

x) *Subclause 2.4.2.6*

The design of insulated cavity walls should be in accordance with BS 5628-3:2001, **5.5.4.2.7** and should take into account BS 5628-3:2001, **5.5.2.4.5** to **5.5.2.4.10**.

NOTE Design details for suitable damp-proof courses, cavity trays and water barriers of various types are given in BS 5628-3:2001, **4.7**.

y) *Subclause 2.4.3*

Pending the implementation of EN 13914-1, the design of rendered single leaf walls should be in accordance with BS 5628-3:2001, **5.5.4.2.3** and BS 5628-3:2001, Table 12. Ventilated cladding systems, e.g. tile hanging, should be designed in accordance with manufacturers specifications.

6.3 Section 3 Execution

a) *Subclause 3.2*

The category of execution should be one of two categories which are listed in Table 1 of the NAD to ENV 1996-1-1.

b) *Subclause 3.4.3.2*

When sampled and tested in accordance with BS 4551-2, the chloride content of site made mortars and concrete infill should not exceed the level set out in of BS 5628-2:2000, Table 2.

c) *Subclause 3.4.3.3, item (1)*

Pending the implementation of EN 1015-11, when the strength of mortar and concrete infill need to be monitored, they should be tested in accordance with BS 4551-2.

d) *Subclause 3.7.5, item (2)*

The recommendation to not pierce the damp course in respect of vertical reinforcement in Quetta, grouted cavity and pocket-type walls should be ignored.

e) *Subclause 3.7.7*

When incorporating reinforcement and pre-stressing materials, **6.5f)** of the NAD to ENV 1996-1-1 should be used.

f) *Subclause 3.7.10*

When incorporating thermal insulation materials follow appropriate British Standard as listed in Table 4 of the NAD to ENV 1996-1-1:1995.

Bibliography

Standards publications and standards to be published

EN 206, *Concrete*.

EN 771, *Specification for masonry units*.

EN 845-1, *Specification for ancillary components for masonry — Part 1: Ties, tension straps, hangers and brackets*.

EN 845-2, *Specification for ancillary components for masonry — Part 2: Lintels*.

EN 845-3, *Specification for ancillary components for masonry — Part 3: Bed joint reinforcement of steel meshwork*.

EN 998-2, *Specification for mortar for masonry — Part 2: Masonry mortar*.

EN 1015-11, *Methods of test for mortar for masonry — Part 11: Determination of flexural and compressive strength of hardened mortar*.

EN 1052-2, *Methods of test for masonry — Part 2: Determination of flexural strength*.

EN 1052-3, *Methods of test for masonry — Part 3: Determination of initial shear strength*.

EN 1052-5, *Methods of test for masonry — Part 5: Determination of bond strength*.

EN 13914-1, *The design, preparation and application of external rendering and internal plastering — Part 1: External rendering*.

Other documents

[1] GREAT BRITAIN. The Building Regulations 1991. London, The Stationery Office.

[2] GREAT BRITAIN. The Building Standards (Scotland) Regulations 1990. London: The Stationery Office.

[3] GREAT BRITAIN. The Building Regulations (Northern Ireland) 1990. London: The Stationery Office.

[4] BRE. Testing bond strength of masonry. Digest 360. 1991. Watford: BRE and CRC.

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English version

Eurocode 6: Design of masonry structures - Part 2: Design, selection of materials and execution of masonry

Eurocode 6: Calcul des ouvrages en maçonnerie - Partie 2:
Calcul, choix des matériaux et mise en oeuvre des
maçonneries

Eurocode 6: Bemessung und Konstruktion von
Mauerwerksbauten - Teil 2: Planung, Auswahl der
Baustoffe und Ausführung von Mauerwerk

This European Prestandard (ENV) was approved by CEN on 27 February 1998 as a prospective standard for provisional application.

The period of validity of this ENV is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the ENV can be converted into a European Standard.

CEN members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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CONTENTS

	Page
FOREWORD	5
1 GENERAL	7
1.1 Scope	7
1.2 Distinction between Principles and Application Rules	7
1.3 Assumptions	8
1.4 Normative references	8
1.5 Definitions	9
1.5.1 Terms common to all Eurocodes	9
1.5.2 Special terms used in ENV 1996-1-1	9
1.5.3 Special terms used in ENV 1996-2	9
1.6 S.I. units	10
1.7 Symbols	10
2 DESIGN CONSIDERATIONS	11
2.1 Factors affecting the durability of masonry	11
2.1.1 General	11
2.1.2 Micro conditions of exposure	11
2.1.3 Climatic factors (macro conditions of exposure)	11
2.1.4 Exposure to wetness	12
2.1.5 Exposure to freeze/thaw cycling	12
2.1.6 Aggressive chemical environments	12
2.2 Selection of materials	14
2.2.1 General	14
2.2.2 Masonry units	14
2.2.3 Masonry mortar and concrete infill	15
2.2.4 Ancillary components and reinforcement	17
2.2.5 Copings, cappings and sills	18
2.2.6 Damp proof course materials and damp proof membranes	18
2.2.7 Insulation materials	19
2.3 Masonry	19
2.3.1 General	19
2.3.2 Masonry bonds	19
2.3.3 Adhesion	20
2.3.4 Joint finishes	20
2.3.5 Reinforced walls	21
2.3.6 Connection of walls to walls and to other elements	21
2.3.7 Masonry movement	21
2.3.8 Movement joints	22
2.3.9 Permissible deviations	24

2.3.10	Use of thermal insulation	24
2.3.11	Use of ancillary components	25
2.3.12	Use of water repellent agents	26
2.3.13	Constructional details to limit wetting	26
2.4	Resistance to moisture penetration through walls	27
2.4.1	General	27
2.4.2	Walls without applied finishes or cladding	27
2.4.3	Walls with applied external surface finishes or cladding	29
3	EXECUTION	30
3.1	General	30
3.2	Category of execution	30
3.3	Acceptance, handling and storage of materials	30
3.3.1	General	30
3.3.2	Masonry units	30
3.3.3	Factory made mortar	30
3.3.4	Materials for site-made mortars and concrete infill	31
3.3.5	Ancillary components and products	31
3.3.6	Reinforcement and prestressing materials	31
3.4	Preparation of materials	32
3.4.1	General	32
3.4.2	Cutting of masonry units	32
3.4.3	Site-made mortars and concrete infill	32
3.4.4	Factory made mortar and concrete infill and semi-finished factory made mortar.	33
3.4.5	Ancillary components and products	34
3.4.6	Reinforcement and prestressing materials	34
3.5	The appearance of facing masonry	35
3.6	Setting out and levelling	35
3.6.1	Setting out	35
3.6.2	Levelling	35
3.6.3	Permissible deviations	35
3.7	Erection of walls to meet requirements	37
3.7.1	Laying masonry units	37
3.7.2	Achievement of satisfactory adhesion	37
3.7.3	Bedding and toothing	37
3.7.4	Pointing and jointing	38
3.7.5	Incorporation of damp proof courses	38
3.7.6	Incorporation of ancillary components	39
3.7.7	Incorporation of reinforcement and prestressing materials	40
3.7.8	Movement joints	42
3.7.9	Chasing	43
3.7.10	Incorporation of thermal insulation materials	43
3.7.11	Cleaning facing masonry	43
3.7.12	Water repellent agents	43

3.8	Curing and protective procedures during construction	44
3.8.1	General	44
3.8.2	Protection against rain	44
3.8.3	Protection against freeze/thaw cycling	44
3.8.4	Protection against effects of heat	44
3.8.5	Protection against effects of low humidity	44
3.8.6	Protection against mechanical damage	45
3.8.7	Construction height and loading of masonry	45
Annex A	(informative) Classification of micro conditions of exposure of completed masonry	46
Annex B	(informative) Acceptable specifications of masonry units and mortar for durable masonry in various exposure conditions	47
Annex C	(informative) Selection of material and corrosion protection specifications for ancillary components according to exposure class	49
Annex D	(informative) Categories of execution	53
Annex E	(informative) Reference panels	54

Last page is 54

FOREWORD

Objectives of the Eurocodes

- (1) The "Structural Eurocodes" comprise a group of standards for the structural and geotechnical design of buildings and civil engineering works.
- (2) They cover execution and control only to the extent that is necessary to indicate the quality of the construction products, and the standard of the workmanship needed to comply with the assumptions of the design rules.
- (3) Until the necessary set of harmonized technical specifications for products and for the methods of testing their performance is available, some of the Structural Eurocodes cover some of these aspects in informative Annexes.

Background of the Eurocode Programme

- (4) The Commission of the European Communities (CEC) initiated the work of establishing a set of harmonized technical rules for the design of building and civil engineering works which would initially serve as an alternative to the different rules in force in the various Member States and would ultimately replace them. These technical rules became known as the "Structural Eurocodes".
- (5) In 1990, after consulting their respective Member States, the CEC transferred the work of further development, issue and updating of the Structural Eurocodes to CEN, and the EFTA Secretariat agreed to support the CEN work.
- (6) CEN Technical Committee CEN/TC250 is responsible for all Structural Eurocodes.

Eurocode Programme

- (7) Work is in hand on the following Structural Eurocodes, each generally consisting of a number of parts:

EN 1991 Eurocode 1	Basis of design and actions on structures
EN 1992 Eurocode 2	Design of concrete structures
EN 1993 Eurocode 3	Design of steel structures
EN 1994 Eurocode 4	Design of composite steel and concrete structures
EN 1995 Eurocode 5	Design of timber structures
EN 1996 Eurocode 6	Design of masonry structures
EN 1997 Eurocode 7	Geotechnical design
EN 1998 Eurocode 8	Design provisions for earthquake resistance of structures
EN 1999 Eurocode 9	Design of aluminium alloy structures

- (8) Separate sub-committees have been formed by CEN/TC250 for the various Eurocodes listed above.
- (9) This part 2 of Eurocode 6 is being published as a European Prestandard (ENV) with an initial life of three years.
- (10) This Prestandard is intended for experimental application and for the submission of comments.
- (11) After approximately two years CEN members will be invited to submit formal comments to be taken into account in determining future actions.

(12) Meanwhile feedback and comments on this Prestandard should be sent to the Secretariat of CEN/TC 250/SC6 at the following address:

DIN - NABau, Burggrafenstrasse 6, Postfach 1107
D107732 - BERLIN 30, Germany.

or to your national standards organization.

National Application Documents (NADs)

(13) In view of the responsibilities of authorities in member countries for safety, health and other matters covered by the essential requirements of the Construction Products Directive (CPD), certain safety elements in this ENV have been assigned indicative values which are identified by [] ("boxed values"). The authorities in each member country are expected to review the "boxed values" and may substitute alternative definitive values for these safety elements for use in national application.

(14) Some of the supporting European or International standards might not be available by the time this Prestandard is issued. It is therefore anticipated that a National Application Document (NAD) giving any substitute definitive values for safety elements, referencing compatible supporting standards and providing guidance on the national application of this Prestandard, will be issued by each member country or its Standards Organization.

(15) It is intended that this Prestandard is used in conjunction with the NAD valid in the country where the building or civil engineering works is located.

Matters specific to this Prestandard

(16) The scope of Eurocode 6 is defined in ENV 1996-1-1, and this includes information on the other Parts of Eurocode 6 and the further Parts which are planned.

(17) The scope of this Part of Eurocode 6 is defined in its clause 1.1.

(18) This Part 2 of Eurocode 6 replaces all of Section 6 of ENV 1996-1-1. Section 6 will eventually be omitted from ENV 1996-1-1.

1 GENERAL

1.1 Scope

(1)P The scope of Eurocode 6 for Masonry Structures as given in **1.1.1** of ENV 1996-1-1 applies also to this Part 2.

(2)P This Part 2 provides the necessary Principles and Application Rules for masonry to be designed and constructed satisfactorily in order to comply with the design assumptions of the other Parts of Eurocode 6. Except for the items as given in **1.1(3)P**, it deals with ordinary aspects of masonry design and construction including:

- the selection of materials;
- methods of combining masonry materials and of incorporating other materials required to give functional performance;
- factors affecting the performance and durability of masonry;
- resistance of buildings to moisture penetration;
- storage, preparation and use of materials on site;
- the erection of walls and the connection of walls to walls and to other elements of structure;
- protective procedures during construction.

(3)P This Part 2 does not cover the following items:

- those aspects of masonry covered in other Parts of Eurocode 6;
- applied wall finishes;
- safety aspects of how masonry is erected;
- the environmental effects of masonry buildings, civil engineering works and structures on their surroundings.

1.2 Distinction between Principles and Application Rules

(1)P Depending on the character of the individual paragraphs, a distinction is made in this Part between principles and application rules.

(2)P The principles comprise:

- general statements and definitions for which there is no alternative;
- requirements for which no alternative is permitted unless specifically stated.

(3) The Principles are identified by the letter P following the paragraph number.

(4)P The application rules are generally recognised rules that follow the principles and satisfy their requirements. Alternative rules different from the application rules given in this Part may be used