NATIONAL ANNEX TO CYS EN 1996-1-2:2005 (Including AC:2010)

Eurocode 6: Design of masonry structures Part 1-2: General rules - Structural fire design

CYPRUS ORGANISATION FOR STANDARDISATION

NATIONAL ANNEX

TO

CYS EN 1996-1-2:2005 including AC:2010 Eurocode 6: Design of masonry structures Part 1-2: General rules - Structural fire design

This National Annex has been approved by the Board of Directors of the Cyprus Organisation for Standardisation (CYS) on 14.06.2019.

INTRODUCTION

This National Annex has been prepared by the CYS TC 18 National Standardisation Technical Committee of Cyprus Organisation for Standardisation. (CYS)

NA 1 SCOPE

This National Annex is to be used together with CYS EN 1996-1-2:2005 including AC:2010.

Any reference in the rest of this text to CYS EN 1996-1-2:2005 means the above document.

This National Annex gives:

(a) Nationally determined parameters for the following clauses of CYS EN 1996-1-2:2005 including AC:2010 where National choice is allowed (see Section NA 2)

- 2.1.3(2)
- 2.2(2)
- 2.3(2)P
- 3.3.3.1(1)
- 3.3.3.2(1)
- 3.3.3.3(1)
- 4.5(3)
- Annex B
- Annex C

(b) Decisions on the use of the Informative Annexes A, C, D, and E (see Section NA 3)

(c) References to non-contradictory complementary information to assist the user to apply CYS EN 1996-1-2:2005+AC:2010. In this National Annex such information is not provided (see Section NA 4).

NA 2 NATIONALLY DETERMINED PARAMETERS

NA 2.1 Clause 2.1.3 Actions

(2) The values of maximum temperature rise during the decay phase are $\Delta\Theta 1 = 200K$ and $\Delta\Theta 1 = 240K$.

NA 2.2 Clause 2.2 Actions

(2) The emissivity value, ε_m, of a masonry surface depends on the material of the masonry and is given in CYS EN 1991-1-2.

NA 2.3 Clause 2.3 Design values of material properties

(2)P The recommended value of $\gamma_{M,fl} = 1.0$ for both mechanical and thermal properties of masonry is adopted.

NA 2.4 Clause 3.3.3.1 Thermal elongation

(1) The thermal elongation of masonry should be determined from tests or from a database. The variation of thermal elongation with temperature for some materials is given in Annex D.

NA 2.5 Clause 3.3.3.2 Specific heat capacity

(1) The specific heat capacity of masonry, c_a, should be determined from tests or from a database. The variation of specific heat capacity with temperature for some materials is given in Annex D.

NA 2.6 Clause 3.3.3.3 Thermal conductivity

(1) The thermal conductivity, λ_a, of masonry should be determined from tests or from a database. The variation of thermal conductivity with temperature for some materials is given in Annex D.

NA 2.7 Clause 4.5 Assessment by tabulated data

(3) The safety factor value for use in fire tests, γ_{Glo} are taken to be between 3 and 5.

NA 2.8 Clause Annex B- Tabulated fire resistance of masonry

The recommended values of t_F, l_F given in Tables N.B.1 to N.B.5 are adopted.

NA 2.9 Clause Annex C- Simplified calculation model

The recommended values of constant *c* are given in Table 1 (CYS) below.

Table 1 (CYS). Values of constant, *c*, and temperature θ_1 and θ_2 by masonry material

Masonry units and mortar (surface unprotected) according to 1.1 (2)	Values of constant *c*	Temperature °C	
		θ_2	θ_1
Clay units with general purpose mortar	c_{cl}	600	100
Calcium silicate units with thin layer mortar	c_{cs}	500	100
Lightweight aggregate units (pumice) with general purpose mortar	c_{la}	400	100
Dense aggregate units with general purpose mortar	c_{da}	500	100
Autoclaved aerated units with thin layer mortar	c_{aac}	700	200

NA 3 DECISION ON USE OF THE INFORMATIVE ANNEXES

NA 3.1 Annex A

Annex A may be used

NA 3.2 Annex C

Annex C may be used

NA 3.3 Annex D

Annex D may be used

NA 3.4 Annex E

Annex E may be used

NA 4 REFERENCES TO NON-CONTRADICTORY COMPLEMENTARY INFORMATION

None

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NA to CYS EN 1996-1-2:2005 (Including AC:2010)

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