

CYS National Annex to CYS EN 1998-3:2005

Eurocode 8: Design of structures for earthquake resistance

Part 3: Assessment and retrofitting of buildings

Prepared by
Eurocodes Committee, Scientific and Technical
Chamber of Cyprus under a Ministry of Interior's Programme



NATIONAL ANNEX

TO

**CYS EN 1998-3:2005 Eurocode 8: Design of structures for
earthquake resistance**

Part3: Assessment and retrofitting of buildings

**This National Annex has been approved by the Board of Governors of the
Cyprus Organisation for Standardisation on 11/06/2010.**

INTRODUCTION

This National Annex has been prepared by the Eurocodes Committee of the Technical Chamber of Cyprus which was commissioned by the Ministry of Interior of the Republic of Cyprus

NA 1 SCOPE

This National Annex is to be used together with CYS EN 1998-3:2005

This National Annex gives:

- (a) Nationally determined parameters for the following clauses of CYS EN 1998-3:2005 where National choice is allowed (see Section NA 2)
 - 1.1 (4)
 - 2.1 (2)P
 - 2.1 (3)P
 - 2.2.1 (7)P
 - 3.3.1 (4)
 - 3.4.4 (1)
 - 4.4.2 (1)P
 - 4.4.4.5 (2)P
- (b) Decisions on the use of the Informative Annexes A, B and C (see Section NA 3)
- (c) References to non-contradictory complementary information to assist the user to apply CYS EN 1998-3:2005 (see Section NA 4).

NA 2 NATIONALLY DETERMINED PARAMETERS

NA 2.1 Clause 1.1 (4) Scope of CYS EN 1998-3:2005

Informative Annex A, Informative Annex B and Informative Annex C of CYS EN 1998-3:2005 may be used as Informative Annexes.

NA 2.2 Clause 2.1 Fundamental requirements

- (2)P Buildings of importance class IV (as defined in Table 4.3 of CYS EN 1998-1:2004) should be checked for all three Limit States defined in 2.1(1)P of CYS EN 1998-3:2005. For the other importance classes the number of limit states to be checked shall be agreed between the owner and the designer.
- (3)P The return periods specified for the various Limit States shall be agreed between the owner and the designer. The protection normally considered appropriate for ordinary new buildings is considered to be achieved by selecting the following values for the return periods: 2.475 years, corresponding to a probability of exceedance of 2% in 50 years for the LS of Near Collapse (NC), 475 years, corresponding to a probability of exceedance of 10% in 50 years for the LS of significant Damage (SD), and 225 years, corresponding to a probability of exceedance of 20% in 50 years for the LS of Damage Limitation (DL).

NA 2.3 Clause 2.2.1 (7)P General

The values of the partial factors specified in clauses 5.2.4(3), 6.1.3(1), 7.1.3(1) and 9.6(3) of CYS EN1998-1:2004 and its national annex should be used in the calculation of strength capacities of brittle “primary seismic” elements.

NA 2.4 Clause 3.3.1 (4) Knowledge levels – Definition of knowledge levels

Table 3.1 (CYS) defines values for the symbols of Table 3.1 of CYS EN 1998-3:2005.

Table 3.1 (CYS): Recommended minimum requirements for different levels of inspection and testing

Knowledge Level	Geometry	Details	Materials	Analysis	CF
KL1		Simulated design in accordance with relevant practice and from limited in-situ inspection	Default values in accordance with standards of the time of construction and from limited in-situ testing	LF-MRS	1,35
KL2		From incomplete original detailed construction drawings with limited in-situ inspection or From extended in-situ inspection	From original design specifications with limited in-situ testing or from extended in-situ testing	ALL	1,20
KL3		From original detailed construction drawings with limited in-situ inspection or from comprehensive in-situ inspection	From original test reports with limited in-situ testing or from comprehensive in-situ testing	ALL	1,00

NA 2.5 Clause 3.4.4 (1) Definition of the levels of inspection and testing

Table 3.2 (CYS) provides the minimum values for the amount of inspection and testing to be used.

Table 3.2 (CYS): Recommended minimum requirements for different levels of inspection and testing

Level of inspection and testing	Inspection (of details)	Testing (of materials)
	For each type of primary element (beam, column, wall):	
	Percentage of elements that are checked for details	Material samples per floor
Limited	20	1
Extended	50	2
Comprehensive	80	3

NA 2.6 Clause 4.4.2 (1)P Lateral force analysis

The value of the ratio ρ_{\max}/ρ_{\min} is specified as 2,5.

NA 2.7 Clause 4.4.4.5 (2)P Procedure for estimation of torsional and higher mode effects

No reference to complementary information is made

NA 3 DECISION ON USE OF THE INFORMATIVE ANNEXES A AND B

NA 3.1 Annex A

Annex A may be used

NA 3.2 Annex B

Annex B may be used

NA 3.3 Annex C

Annex C may be used

NA 4 REFERENCES TO NON-CONTRADICTIONARY COMPLEMENTARY INFORMATION

None

CYPRUS ORGANISATION FOR STANDARDISATION

Limassol Avenue and Kosta Anaxagora 30,
2nd & 3rd Floor, 2014 Nicosia, Cyprus
P.O.BOX.16197, 2086 Nicosia, Cyprus
Tel: +357 22 411411 Fax: +357 22 411511

E-Mail: cystandards@cys.org.cy

Website: www.cys.org.cy
