

***NATIONAL ANNEX
TO
CYS EN 1995-1-1:2004
(Including AC:2006,
A1:2008 and A2:2014)***

***Eurocode 5 : Design
of Timber Structures***

***Part 1-1: General –
Common rules and
rules for buildings***

NA to
CYS EN
1995-1-1:2004
(Including
AC:2006,
A1:2008 and
A2:2014)



NATIONAL ANNEX
TO
CYS EN 1995-1-1:2004+AC:2006+A1:2008+A2:2014
Eurocode 5 : Design of Timber Structures
Part 1-1: General – Common rules and rules for
buildings

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

Copyright

Right to reproduce and distribute belongs to the Cyprus Organisation for Standardisation.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Cyprus Organisation for Standardisation.

If you have any questions about standards copyright, please contact Centre of Information and Customer Service at the Cyprus Organisation for Standardisation phone: +357 22 411413/4 email: c.service@cys.org.cy

INTRODUCTION

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

NA 1 SCOPE

This National Annex is to be used together with CYS EN 1995-1-1:2004+AC:2006+A1:2008+A2:2014. Any reference in the rest of this text to CYS EN 1995-1-1:2004 means the above document

This National Annex gives:

- (a) Nationally determined parameters for the following clauses of CYS EN 1995-1-1:2004+AC:2006+A1:2008+A2:2014 where National choice is allowed (see Section NA 2)
- 2.3.1.2(2)P
 - 2.3.1.3(1)P
 - 2.4.1(1)P
 - 6.4.3(8)
 - 7.2(2)
 - 7.3.3(2)
 - 8.3.1.2(4)
 - 8.3.1.2(7)
 - 9.2.4.1(7)
 - 9.2.5.3(1)
 - 10.9.2(3)
 - 10.9.2(4)
- (b) Decisions on the use of the Informative Annexes A, B, C, and D (see Section NA 3)
- (c) References to non-contradictory complementary information to assist the user to apply CYS EN 1995-1-1:2004/A1:2008 (see Section NA 4).

NA 2 NATIONALLY DETERMINED PARAMETERS

NA 2.1 Clause 2.3.1.2(2)P Load-duration classes

Examples of load-duration assignment are given in Table 2.2(CYS) below.

Table 2.2(CYS) – Examples of load-duration assignment

Load-duration class	<i>Loading</i>
Permanent	Self-weight Machinery, equipment and lightweight partition walls fixed permanently to the structure Earth pressure
Long-term	Storage loads (category E) Water tank load
Medium-term	Snow Uniformly distributed imposed loads on floors and balconies in categories A - D Imposed loads on garages and trafficable areas (categories F and G)

	Actions due to moisture variation
Short-term	Imposed loads on stairs Concentrated imposed load (Q_k) Horizontal loads on partition walls and parapets Maintenance load or load caused by persons on a roof (category H) Vehicle loads in category E Actions due to transport vehicles Installation loads
Instantaneous	Wind Accidental action

NA 2.2 2.3.1.3(1) Service classes

The following table provides additional information on the assignment of structures to service classes given in (2)P,(3)P and (4)P:

Service class	Description	Maximum Moisture Content
1	Timber structures in heated rooms or in corresponding moisture conditions. Any structures in thermally insulated spaces and beams with their tension side within thermal insulation	12%
2	Dry timber structures outdoors. Structures should be in a covered and ventilated space and well protected underneath and on the sides from getting wet. For instance, timber structures in a ground floor and cold attic space are usually included in this service class.	20%
3	Timber structures exposed to weather, in a damp space outside or subject to the immediate effect of water.	>20%

NA 2.3 2.4.1(1)P Design value of material property

The recommended values for the partial factors γ_M given in Table 2.3 of EN1995-1-1 for material properties and resistances are adopted.

NA 2.4 6.4.3(8) Double tapered, curved and pitched cambered beams

The recommended expression (6.54) is adopted

$$\sigma_{t,90,d} = k_p \frac{6M_{ap,d}}{bh_{ap}^2}$$

NA 2.5 7.2(2) Limiting values for deflections of beams

The limiting values for deflections of beams are given in Table 7.2 (CYS) below

Table 7.2 (CYS) – Limiting values for deflections of beams

	W_{inst}	$W_{net,fin}$	W_{fin}
Beams on two supports	$\ell/300$ to $\ell/500$	$\ell/250$ to $\ell/350$	$\ell/150$ to $\ell/300$
Cantilevering beams	$\ell/150$ to $\ell/250$	$\ell/125$ to $\ell/175$	$\ell/75$ to $\ell/150$

The higher values refer to situations where the member does not support sensitive structures or equipment (brittle partitions, machinery etc.).

For roofs in general the higher values may be used.

For general residential floors intermediate values should be chosen.

NA 2.6 7.3.3(2) Residential floors

The following values should be used for the limiting values a and b

$$a=1.0 \text{ mm/kN}$$

$$b=120$$

NA 2.7 8.3.1.2 Nailed timber-to-timber connections

- (4) The recommendation of 8.3.1.2(3) applies. Nails in the end grain should not be considered capable of transmitting lateral forces.
- (7) Clause 8.3.1.2(7) applies for species fir (*abies alba*) and Douglas fir (*pseudotsuga menziesee*).

NA 2.8 9.2.4.1(7) General

The recommended simplified analysis of wall diaphragms is carried out using method A in accordance with clause 9.2.4.2 of CYS EN 1995-1-1:2004/A1:2008+A2:2014+AC:2006

NA 2.9 9.2.5.3(1) Bracing of beam and truss systems

Table 9.2 (CYS) specifies the values of the symbols in Table 9.2 of CYS EN 1995-1-1:2004/A1:2008.

Table 9.2 (CYS) – Values of modification factors

<i>Modification factor</i>	<i>Value</i>
k_s	4
$k_{f,1}$	50
$k_{f,2}$	80
$k_{f,3}$	30

NA 2.10 10.9.2 Erection

- (3) The maximum bow, a_{bow} , permitted after installation in bay of any truss member is $a_{bow,perm}=15 \text{ mm}$.

The maximum bow permitted in total length of chord $a_{\text{bow,perm}} = \min(l/300; 50 \text{ mm})$, where l is the length of chord.

- (4) The maximum permitted deviation of a truss from true vertical alignment $a_{\text{dev,perm}} = \min(10 \text{ mm} + h/200; 25\text{mm})$ where h is the height of the truss in the actual point, in mm.

NA 3 DECISION ON USE OF THE INFORMATIVE ANNEXES

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 3.4 Annex D

Annex D may be used

NA 4 REFERENCES TO NON-CONTRADICTIONARY COMPLEMENTARY INFORMATION

None

**NA to
CYS EN
1995-1-1:2004
(Including
AC:2006,
A1:2008 and
A2:2014)**

CYPRUS ORGANISATION FOR STANDARDISATION

Limassol Avenue and Kosta Anaxagora 30,
2nd & 3rd Floor, 2014 Strovolos, 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
