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English version
Version Française
Deutsche Fassung

Eurocode 3: Design of steel structures - Part 1-2: General rules - Structural fire design

Eurocode 3 - Calcul des structures en acier
- Partie 1-2 : Règles générales - Calcul du
comportement au feu

Eurocode 3: Bemessung und Konstruktion
von Stahlbauten - Teil 1-2: Allgemeine
Regeln - Tragwerksbemessung für den
Brandfall

This corrigendum becomes effective on 18 March 2009 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 18 mars 2009 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 18.März 2009 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No.: EN 1993-1-2:2005/AC:2009 D/E/F

Rakennustuoteteollisuus. Käyttö sallittu vain standardien laadintaan. 04.05.2009

Modifications due to EN 1993-1-2:2005/AC:2005

1) Modifications to Subclauses 2.1.1, 2.4.1 and 4.2.1

The corrections are to add a "P" after the clause number and replace "should" with "shall" where appropriate. The corrections are underlined as shown.

'2.1.1 Basic requirements'

"(1)P Where mechanical resistance in the case of fire is required, steel structures shall be designed and constructed in such a way that they maintain their load bearing function during the relevant fire exposure."

'2.4.1 General'

"(2)P It shall be verified that, during the relevant duration of fire exposure t :"

'4.2.1 General'

"(1)P The load-bearing function of a steel member shall be assumed to be maintained after a time t in a given fire if:"

Modifications due to EN 1993-1-2:2005/AC:2009

2) Modification to Subclause 1.2

Delete:

"

EN 10155 Structural steels with improved atmospheric corrosion resistance - Technical delivery conditions;

".

3) Modifications to Subclause 1.6

Change the dimension of A_p "[m²]" into: "[m²/m]".

Change the reduction factor determined for the appropriate bolt temperature " $k_{b,..}$ " into: " $k_{b,\theta}$ ".

Change the strength reduction factor for welds " $k_{w,..}$ " into: " $k_{w,\theta}$ ".

4) Modifications to Subclause 4.2.3.3

Paragraph '(3)', equation '(4.10)', change " $\kappa_1\kappa_2$ " into: " $(\kappa_1\kappa_2)$ ".

Paragraph '(3)', equation '(4.10)', add the condition:

"

$$M_{fi,\theta,Rd} \leq M_{Rd}$$

".

5) Modifications to Subclause 4.2.3.4

Paragraph '(2)', 9th line: delete: ", see 3".

Paragraph '(2)', equation '(4.18)', change " $\kappa_1\kappa_2$ " into: " $(\kappa_1\kappa_2)$ ".

Paragraph '(2)', equation '(4.18)', add the condition:

"

$$M_{fi,\theta,Rd} \leq M_{Rd}$$

".

6) Modifications to Subclause 4.2.3.5

Paragraph '(1)', change the formulae for " μ_y ":

"

For the strong axis:

$$\mu_y = (2\beta_{M,y} - 5)\bar{\lambda}_{y,\theta} + 0,44\beta_{M,y} + 0,29 \leq 0,8 \text{ with } \bar{\lambda}_{y,20^\circ C} \leq 1,1 .$$

"

Paragraph '(1)', change the formulae for " μ_z " as follows:

"

For the weak axis:

$$\mu_z = (1,2\beta_{M,z} - 3)\bar{\lambda}_{z,\theta} + 0,71\beta_{M,z} - 0,29 \leq 0,8$$

"

7) Modifications to Subclause 4.2.4

Paragraph '(2)', 1st line: change "when stability phenomena have" into: "when instability phenomena have".

Paragraph '(4)', change the current reference for ' η_{fi} ' to "2.4.3(3)" into: "2.4.2(3)".

8) Modifications to Subclause 4.2.5.1

Paragraph '(1)', equation '(4.25)', change " \dot{h}_{net} " into: " $\dot{h}_{net,d}$ ".

Paragraph '(1)', equation '(4.25)', list of definitions under 'where', change " \dot{h}_{net} " into: " $\dot{h}_{net,d}$ ".

9) Modifications to Annex A

Equation '(A.1c)', change " σ " into " σ_a ".

Equation '(A.2b)', change " θa " into: " θ_a ".

10) Modification to Subclause B.4

Paragraph '(1)', equation '(B.18)', replace the equation with:

"

$$I_z = \frac{(I_{z,1} + I_{z,2}) \cdot d_1 + (I_{z,3} + I_{z,4}) \cdot d_2}{(C_1 + C_2) \cdot d_1 + (C_3 + C_4) \cdot d_2}$$

"

11) Modification to Subclause B.5.1.1

Paragraph '(5)', equation '(B.21)', replace the equation with:

"

$$I_z = \frac{(I_{z,1} + I_{z,2}) \cdot d_1 + (I_{z,3} + I_{z,4}) \cdot d_2}{(C_1 + C_2) \cdot d_1 + (C_3 + C_4) \cdot d_2}$$

"

12) Modification to Subclause B.5.3

Paragraph '(1)', add after equation '(B.26)':

"

where:

h is the height of the opening. See figure B.7b) (height is noted as λ_1).

"

13) Modification to Subclause C.2.2

Figure C.1, change the expression for 'Tangent Modulus' for ' $\varepsilon_{c,\theta} < \varepsilon \leq \varepsilon_{u,\theta}$ ':

"

$$\frac{d + (\varepsilon_{u,\theta} - \varepsilon)}{c \sqrt{c^2 - (\varepsilon_{u,\theta} - \varepsilon)^2}}$$

"

into:

"

$$\frac{d \cdot (\varepsilon_{u,\theta} - \varepsilon)}{c \sqrt{c^2 - (\varepsilon_{u,\theta} - \varepsilon)^2}}$$

“.

14) Modification to Subclause C.3.2

Paragraph '(1)', 'NOTE', change "Figure C,3" into: "Figure C.3" in the title of this figure.

15) Modifications to Subclause D.1.1.1

Paragraph '(1)', change in the description of the variables of equation '(D.1)' " $k_{b,..}$ " into: " $k_{b,\theta}$ ".

Paragraph '(2)', change in the description of the variables of equation '(D.2)' " $k_{b,..}$ " into: " $k_{b,\theta}$ ".

16) Modifications to Subclause D.1.2.1

Paragraph '(1)', change in the description of the variables of equation '(D.3)' " $k_{b,..}$ " into: " $k_{b,\theta}$ ".

'Table D.1', change in the top row of the table " $k_{b,..}$ " into: " $k_{b,\theta}$ ", and " $k_{w,..}$ " into: " $k_{w,\theta}$ ".

17) Modifications to Subclause D.2.2

Paragraph '(1)', change in the description of the variables of equation '(D.4)' " $k_{w,..}$ " into: " $k_{w,\theta}$ ".

Paragraph '(1)', change the reference to "EN1 993-1-8" into: "EN 1993-1-8".

18) Modifications to Subclause E.2

Paragraph '(5)', change "... for the design yield strength of stainless steels relative to the yield strength..." into: "... for the design proof strength of stainless steels relative to the proof strength..."

'Table E.1', change in the top row of the table: " $k_{p0,2,\theta}$ " into: " $k_{0,2p,\theta}$ ".

'Figure E.2', change in the figure " $k_{p0,2,\theta}$ " and " $f_{p0,2,\theta}$ " into: " $k_{0,2p,\theta}$ " and " $f_{0,2p,\theta}$ ".