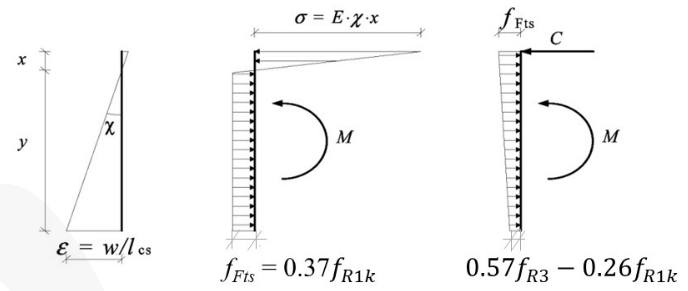
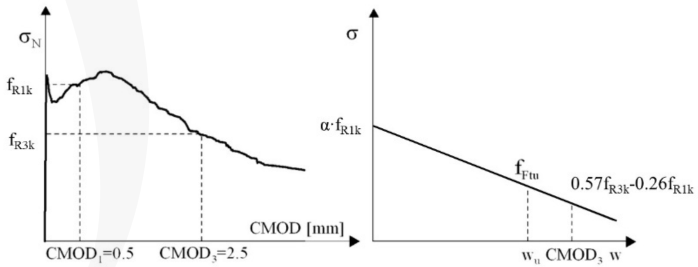
Errata to ***fib* Model Code 2020 – Version 1 [2023]** – Errata release date 03-09-2024 (Printed as ***fib* Model Code 2020 – Version 1.2 [2024]**)

Page .nr.	Par. / Eq. / Fig.	Original	Correction
IV	TOC	Heading "14 Concretes"	"14 Concrete"
110	11.3.2.2.1	Informative side, 2e sentence: "In most design situations, the design values obtained considering either $\beta_{t,eco,1}$ or $\beta_{t,eco,50}$ values in Table 11.3-2 and Table 11.3-3, respectively,….."	"In most design situations, the design values obtained considering either $\beta_{t,eco,1}$ or $\beta_{t,eco,50}$ values in Table 11.3-5 and Table 11.3-6, respectively,….."
111	11.3.2.2.1	Informative side, 7nd paragraph "The target reliability indices $\beta_{t,eco}$ provided in Table 11.35 and Table 11.3-6 are indicative for developed countries."	"The target reliability indices $\beta_{t,eco}$ provided in Table 11.3-5 and Table 11.3-6 are indicative for developed countries."
128	Par. 12.5.3	Heading "15.5.3.2 Basic rules for probabilistic approach"	"12.5.3.2 Basic rules for probabilistic approach"
144	12.5.4.2.3.3.1	Informative side, last paragraph: "The values of the partial factors given in Table 12.5-13 are based on (12.5-18) and obtained by numerical integration. The approximations based on Gumbel (for imposed, snow, and wind) and lognormal (road traffic) distributions, given in (6.4.3-7) and (6.4.3-10) respectively, underestimate γ-values (errors around 5%) and the correction factor can be considered as δ = 1.05."	"The values of the partial factors given in Table 12.5-13 are based on Eq. (12.5-18) and obtained by numerical integration. The approximations based on Gumbel (for imposed, snow, and wind) and lognormal (road traffic) distributions, given in Eq. (12.5-20) and Eq. (12.5-23) respectively, underestimate γ-values (errors around 5%) and the correction factor can be considered as δ = 1.05."
161	14.	Heading "14 Concretes"	"14 Concrete"
181	14.9.2	Heading "14.9.3 Development of modulus of elasticity with time"	"14.9.2 Development of modulus of elasticity with time"
183	Eq. 14.10-7	Definition of t_0 "t_0 is the age of concrete at loading in days adjusted according to Eqs. (14.10-20) and (14.6-80)."	"t_0 is the age of concrete at loading in days adjusted according to Eqs. (14.10-20) and (14.11-1)."
184	Eq. 14.10-11	Definition of β_{dc} (f_{cm}) is missing	$\beta_{dc}\left(f_{cm}\right)=\dfrac{412}{\left(f_{cm}\right)^{1.4}}$ (14.10-12a)
184	Eq. 14.10-12	Renumber equation (14.10-12) to include β_{dc}	Change numbering "Eq. (14.10-12)" into "Eq. (14-10-12b)"
184	Eq. 14.10-18	Definition of $t_{0,adj}$ "$t_{0,adj}$ is the adjusted age at loading in days according to Eq. (14.6-68)."	"$t_{0,adj}$ is the adjusted age at loading in days according to Eq. (14.10-20)."
187	Table 14.10-3	Heading: *"Total shrinkage values $\varepsilon_{cs,50y}\cdot 10^3$ of an ordinary structural concrete*	*"Total shrinkage values $\varepsilon_{cs,50y}\cdot 10^{-3}$ of an ordinary structural concrete after a*

		after a duration of drying of 50 years (service life according to Table 11.2-1).”	*duration of drying of 50 years (service life according to Table 11.2-1).”*
188	14.11.3.1	Informative side, first sentence: “Eqs. (14.6-82) and (14.6-83) are valid for sealed concrete tested in the hot state shortly after completion of the heating. “	“Eqs. (14.11-3) and (14.11-4) are valid for sealed concrete tested in the hot state shortly after completion of the heating.”
190	Eq. 14.11-11	Definition of f_{ctm} “f_{ctm} is the uniaxial tensile strength in MPa at T = 20 °C from Eq. (14.63);”	“f_{ctm} is the uniaxial tensile strength in MPa at T = 20 °C from Eq. (14.6-3);”
192	Eq. 14.11-26	Definition of $\beta_{h,T}$ and β_h “$\beta_{h,T}$ is a temperature dependent coefficient replacing β_h in Eq. (14.10-15a); β_h is the coefficient according to Eq. (14.10-15c);”	“$\beta_{h,T}$ is a temperature dependent coefficient replacing β_h in Eq. (14.10-15); β_h is the coefficient according to Eq. (14.10-17);”
197	Par. 14.13.5	Normative side, first sentence: “For monotonically increasing compressive stresses or strains up to the peak stress, as an approximation Eq. (14.8-1) may be used together with Eqs. (14.131) - (14.13-4) for the peak stress $f_{c,imp}$, Eqs. (14.13-5) and (14.13-6) for the modulus of elasticity $E_{c,imp}$ and Eq. (14.13-7) for the strain at maximum stress $\varepsilon_{c1,imp}$.”	“For monotonically increasing compressive stresses or strains up to the peak stress, as an approximation Eq. (14.8-1) may be used together with Eqs. (14.13-1) - (14.13-4) for the peak stress $f_{c,imp}$, Eqs. (14.13-5) and (14.13-6) for the modulus of elasticity $E_{c,imp}$ and Eq. (14.13-7) for the strain at maximum stress $\varepsilon_{c1,imp}$.”
210	Par. 14.19.1.2	Normative side, third sentence: “The values given in Table 14.191 are approximate values for the E modulus E_{cm}, being the secant value between $\sigma_c = 0$ and 0.4 f_{cm} for concrete with quartzite aggregate, subjected to short term loading.”	“The values given in Table 14.19-1 are approximate values for the E modulus E_{cm}, being the secant value between $\sigma_c = 0$ and 0.4 f_{cm} for concrete with quartzite aggregate, subjected to short term loading.”
262	Par. 18.3	Normative side, 2e paragraph: “The strength interval is defined by two subsequent numbers in the series: 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 10.0, 12.0, 14.0 [MPa] while the letters a, b, c, d, e, correspond to the residual strength ratios:”	“The strength interval is defined by two subsequent numbers in the series: 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 6.0, 7.0, 8.0, 10.0, 12.0, 14.0 [MPa] while the letters a, b, c, d, e, correspond to the residual strength ratios:”
264	Eq. 18.4-6	Replace equation: $f_{Ftu} = f_{Fts} - \frac{w_u}{CMOD_3}\left(f_{Fts} - 0.57 f_{R3k} + 0.26 f_{R1k}\right) \geq 0$	$f_{Ftu} = f_{Fts} - \frac{w_u - CMOD_1}{CMOD_3 - CMOD_1}\left(f_{Fts} - 0.57 f_{R3k} + 0.26 f_{R1k}\right) \geq 0$

264	Fig. 18.4-4	Replace figure.	
264	18.4.2	Informative side, 1[e] sentence underneath Eq. (18.4-7) "The coefficient introduced in Eq. (18.4-3) is affected…"	"The coefficient introduced in Eq. (18.4-5) is affected…"
265	Fig. 18.4-5	Replace figure.	
265	Eq. 18.4-9	Replace equation: $a = 0.52 - 0.15\dfrac{f_{R3}}{f_{R1}}$	$\alpha = 0.52 - 0.15\dfrac{f_{R3}}{f_{R1}}$
266	Eq. 18.4-15	Replace equation: $e_{ULS} = w_u / l_{cs} = \min\left(e_{Fu};\ 2.5/l_{cs}\right)$	$\varepsilon_{ULS} = w_u / l_{cs} = \min\left(\varepsilon_{Fu};\ 2.5/l_{cs}\right)$
267	Eq. 18.4-17	Replace equation: $e_D = \varepsilon_{FU} = 2.5mm/l_{cs}$;	$\varepsilon_D = \varepsilon_{FU} = 2.5mm/l_{cs}$;
267	Eq. 18.4-19	Replace equation: $s(w) = a\cdot w^2 + b\cdot w + c$	$\sigma(w) = a\cdot w^2 + b\cdot w + c$
267	18.4.2	1[e] sentence underneath Figure 18.4-6 "The values α_s and β can be identified by means of equilibrium equations: may be assumed conservatively as α_s =1 and β=0.75."	"The values α_s and β can be identified by means of equilibrium equations: they may be assumed conservatively as α_s =1 and

			β=0.75.”
267	Eq. 18.4-20	Replace equation: $\frac{ds}{dw}=\frac{-f_{Ftu}}{\left(\frac{l_f}{2}-w_D\right)}$	$\frac{d\sigma}{dw}=\frac{-f_{Ftu}}{\left(\frac{l_f}{2}-w_D\right)}$
268	Eq. 18.6-1	Replace equation: “e_{c2} = 0.002(1+0.03f_{R1k})”	“ε_{c2} = 0.002(1+0.03f_{R1k})”
269	Eq. 18.6-7	Replace equation: $s_{rm}=\left(k_c\cdot c+k_{\phi/\rho}\cdot k_{fl}\cdot k_b\frac{\left(f_{ctm-}\cdot f_{\text{Fts,ef}}\right)\phi}{\tau_{bms}\cdot\rho_{s,ef}}\right)$	$s_{rm}=\left(k_c\cdot c+k_{\phi/\rho}\cdot k_{fl}\cdot k_b\frac{\left(f_{ctm-}\cdot f_{Fts,ef}\right)\phi}{\tau_{bms}\cdot\rho_{s,ef}}\right)$
308	Table 20.5-1	Replace in the table: “$e_s<e_{s,y}$” “t_{bmax}” “$t_{bu,split}$” “t_{max}” “t_{bf}”	“$\varepsilon_s<\varepsilon_{s,y}$” “$\tau_{bmax}$” “$\tau_{bu,split}$” “$\tau_{bmax}$” “$\tau_{bf}$”
388	Eq. 29.2-15	Definitions: “S_2(t)”	“S^2(t)”
389	Eq. 29.2-17	Replace equation: $S^{j+1}(t)=S^{el,1}+\sum_{i=1}^{j}\cdot\Delta S^{el,i}\cdot\xi(t',t_0,t_i)$	$S^{j+1}(t)=S^{el,1}+\sum_{i=1}^{j}\cdot\Delta S^{el,i}\cdot\xi(t,t_0,t_i)$
389	29.2.3.8	Informative side, 7th row from the top: “to obtain $\xi(t,t_0,t_1))$ from $J(t,t')$.”	“to obtain $\xi(t,t_0,t_i)$ from $J(t,t')$.”
389	Eq. 29.2-17	Definitions: “$DS^{el,i}$”	“$\Delta S^{el,i}$”
391		Informative side, 24th row from the bottom: “Dt_k”	“Δt_k”
391		Normative side, 14th row from the bottom “$De_{c\sigma}(t_1) = e_\sigma\ (t_0)$”	“$\Delta\varepsilon_{cs}(t_1) = \varepsilon_s(t_0)$”
402	30.1.2.1.3	Informative side, 1e sentence: “To ensure that the ductility demand is met, the term $\|q_{pl} – q_{el}\|$ in Eq. (30.1-6) should not be greater than 15°, unless refined calculations are undertaken to justify a higher value.”	“To ensure that the ductility demand is met, the term $\|\theta_{pl} – \theta_{el}\|$ in Eq. (30.1-5b) should not be greater than 15°, unless refined calculations are undertaken to justify a higher value.”
402	30.1.2.1.3	Normative side, sentence underneath Eq. 30.1-6:	

		"where σ_2 is the minor principal (compressive) stress and k_ε may be taken as 1.0 or determined in accordance with subsection 5.1.6."	"where σ_2 is the minor principal (compressive) stress and k_ε may be taken as 1.0 or determined in accordance with subsection 14.6-3."
402	30.1.3.1.2	Normative side, text above equation 30.1-8: "the contribution of point loads applied within a distance of $d < \alpha_v \leq 2d$ from the face of the support to the design shear force V_{Ed} may be reduced by the factor:"	"the contribution of point loads applied within a distance of $d < a_v \leq 2d$ from the face of the support to the design shear force V_{Ed} may be reduced by the factor:"
403	30.1.3.1.2	Normative side, first sentence: "– in the case of point loads applied as close as $\alpha_v < d$ from the face of the support, the design shear force V_{Ed} shall be calculated with k_{dir} = 0.5 as if the load was applied at $\alpha_v = d$."	"– in the case of point loads applied as close as $a_v < d$ from the face of the support, the design shear force V_{Ed} shall be calculated with k_{dir} = 0.5 as if the load was applied at $a_v = d$. "
403/404	30.1.3.1.2 / Eq. 30.1-10	Text underneath Eq. 30.1-10: "– It is permissible to use a value of e$_x$ that is greater than half the yield strain of the longitudinal bars (e$_{sy}$/2) but a more detailed cross-sectional analysis shall be undertaken. The strain e$_x$ shall not exceed 0.003. – If the value of e$_x$ is negative, $E_s \cdot A_s$ in Eq. (30.1-10) shall be replaced by ($E_c \cdot A_{c,ten} + E_s \cdot A_s$) where $A_{c,ten}$ is the area of the tension chord due to bending – For sections closer than d to the face of the support, the value of e$_x$ taken at d from the face of the support may be used. – For sections within a distance $z_v/2$ of a significant bar curtailment, the calculated value e$_x$ shall be increased by a factor of 1.5. – A_s comprises the main longitudinal reinforcing bars in the tensile chord; any distributed longitudinal reinforcement (longitudinal web reinforcement) is neglected. – In calculating A_s (and A_p) the area of the bars that are terminated less than their development length from the section under consideration shall be reduced in proportion to their lack of full development. – If the axial tension is large enough to crack the flexural compression face of the section, the calculated value of e$_x$	"– It is permissible to use a value of ε_x that is greater than half the yield strain of the longitudinal bars (ε_{sy}/2) but a more detailed cross-sectional analysis shall be undertaken. The strain ε_x shall not exceed 0.003. – If the value of ε_x is negative, $E_s \cdot A_s$ in Eq. (30.1-10) shall be replaced by ($E_c \cdot A_{c,ten} + E_s \cdot A_s$) where $A_{c,ten}$ is the area of the tension chord due to bending – For sections closer than d to the face of the support, the value of ε_x taken at d from the face of the support may be used. – For sections within a distance $z_v/2$ of a significant bar curtailment, the calculated value ε_x shall be increased by a factor of 1.5. – A_s comprises the main longitudinal reinforcing bars in the tensile chord; any distributed longitudinal reinforcement (longitudinal web reinforcement) is neglected. – In calculating A_s (and A_p) the area of the bars that are terminated less than their development length from the section under consideration shall be reduced in proportion to their lack of full development. – If the axial tension is large enough to crack the flexural compression face of the section, the calculated value of ε_x

		shall be multiplied by a factor of 2.0.”	shall be multiplied by a factor of 2.0.”
405	30.1.3.2	Informative side, first sentence: “As given in Eq. (30.1-10), the longitudinal strain e_x can be calculated as a function of the internal forces M_{Ed}, V_{Ed} and N_{Ed}. For designing new structures, this strain may be calculated directly as a function of the internal forces. For calculating the shear resistance of an existing structure, an iteration until the design value of the internal force corresponds to the resistance is needed to find e_x. “	“As given in Eq. (30.1-10), the longitudinal strain ε_x can be calculated as a function of the internal forces M_{Ed}, V_{Ed} and N_{Ed}. For designing new structures, this strain may be calculated directly as a function of the internal forces. For calculating the shear resistance of an existing structure, an iteration until the design value of the internal force corresponds to the resistance is needed to find ε_x. “
405	30.1.3.3.1	Informative side, first sentence: “The web reinforcement ratio r_w given by Eq. (30.1-21) corresponds to the minimum reinforcement ratio as defined in section 30.13.6.”	“The web reinforcement ratio ρ_w given by Eq. (30.1-21) corresponds to the minimum reinforcement ratio as defined in section 30.13.6.”
533	30.5.2.4.4.2	Text above Eq. 30.5-16 “If different bar diameters are used in the tensile area, ……”	“If different bar diameters are used in the effective tension area, ……”
553	Eq. 30.6-6	Replace equation: $V_{corr} = 0,0116 I_{corr}$	$V_{corr} = 11.6 I_{corr}$
575	30.7.3.3.2	Last sentence “In FRC structures satisfying minimum requirements (Eqs. (18.3-4) and (18.3-5)), ..”	“In FRC structures satisfying minimum requirements (Eqs. (18.3-5) and (18.3-6)), ..”