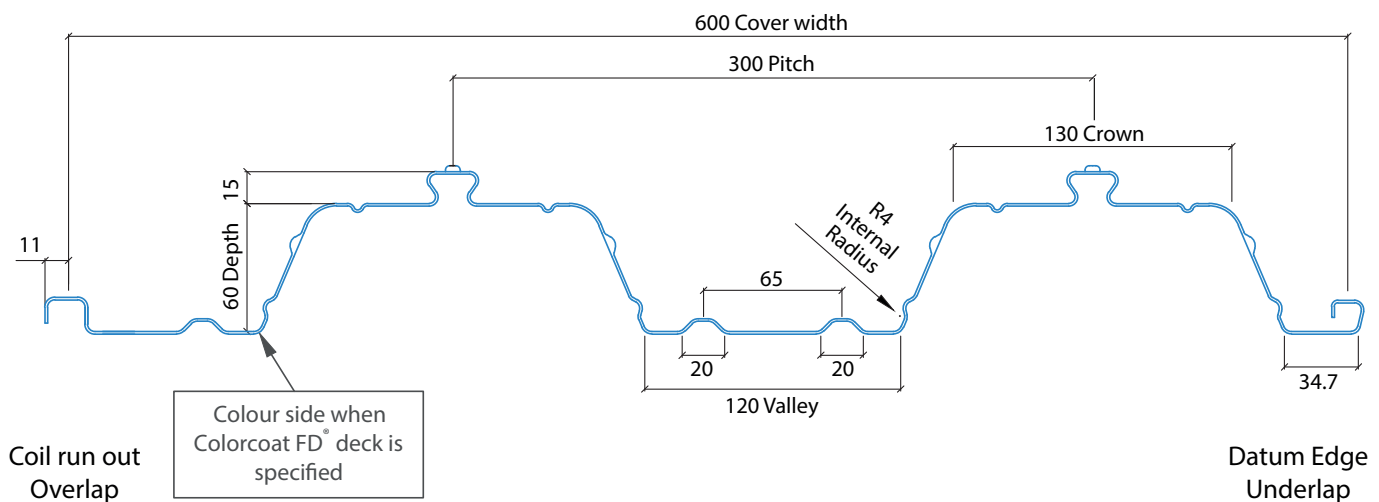


Load/span tables

ComFlor® 60 Profile - 0.90, 1.00 and 1.20mm steel 350N/mm²

ComFlor® 60 has been much copied but never bettered, as the original new generation round shouldered trapezoid combined 60 profile. This design is exceptionally resistant to compressive buckling resulting in superior span capability compared to traditional decks. The combined trapezoidal and re-entrant profile provides the benefits of easy service hanging, good shear interaction and long spans together with low concrete and steel usage. Shear studs are placed centrally in the troughs to ensure beneficial placement and the profile is 600mm cover as recommended by Health and Safety guidelines. ComFlor® 60 can be supplied with pre-closed ends.



Note: all dimensions in mm

The quick reference load/span tables for ComFlor® 60 are intended as a guide for initial design. Detailed design can be carried out using the new ComFlor® 9 design software, which allows Eurocode or British Standard design.

The tables are designed to optimise the span in the construction stage, with the minimum amount of reinforcement needed to achieve the relevant imposed loading and fire resistance. However, in certain conditions where slender slabs are subjected to the higher imposed loads (and depending on whether Mesh and Deck Fire Method or Bar Fire Method is selected for fire resistance),

then the limiting design mechanism becomes associated with the normal stage slab bending and/or vertical shear capacity, and not construction stage.

The total applied loads stated in the Eurocode tables covers an allowable unfactored total load of either 5.00, 7.50 or 10.00kN/m², which represents three typical cases, as specified in the following table. The total load combination is made up of an imposed live load, ceilings and services, finishes and partition loads. However the dead load of the slab itself has already been taken into account and need not be considered as part of the applied load. The three typical load cases of

5.00, 7.50 or 10.00kN/m² have been given the imposed load categories of C, C and E, with their corresponding psi factors given in Table A1.1 of BS EN 1990:2002+A1.

Loading Combination (kN/m²)

Category	C	C	E
Imposed	3.00	4.00	7.50
C & S	0.50	1.00	1.00
Finishes	0.50	1.50	1.50
Partitions	1.00	1.00	0.00
TOTAL	5.00	7.50	10.00

ComFlor® 60 normal weight concrete / using mesh / unpropped / Eurocode

Single span deck continuous slab (m) - Mesh and Deck Fire Method - Beam width 152mm

(Note: Single span deck single span slab is only permitted using Bar Fire Method.)

Props	Fire period	Slab depth (mm)	Mesh 0.2% min.reqd*	Total applied load (kN/m²)								
				0.90mm			1.00mm			1.20mm		
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
None	60 minutes	120***	A142	3.50 (A142)	3.09 (A193)	2.51 (A193)	3.68 (A193)	3.09 (A193)	2.55 (A193)	3.94 (A193)	3.18 (A193)	2.64 (A193)
		130	A142	3.41 (A142)	3.40 (A252)	3.39 (A393)	3.59 (A142)	3.58 (A252)	3.56 (A393)	3.84 (A142)	3.82 (A393)	3.81 (2xA252)
		140	A193	3.32 (A193)	3.32 (A193)	3.30 (A393)	3.50 (A193)	3.50 (A193)	3.48 (A393)	3.74 (A193)	3.74 (A252)	3.73 (A393)
		150	A193	3.24 (A193)	3.24 (A193)	3.23 (A252)	3.42 (A193)	3.42 (A193)	3.40 (A393)	3.66 (A193)	3.66 (A193)	3.65 (A393)
		160	A252	3.16 (A252)	3.16 (A252)	3.16 (A252)	3.34 (A252)	3.34 (A252)	3.34 (A252)	3.58 (A252)	3.58 (A252)	3.57 (A252)
		170	A252	3.09 (A252)	3.09 (A252)	3.09 (A252)	3.27 (A252)	3.27 (A252)	3.27 (A252)	3.51 (A252)	3.51 (A252)	3.51 (A252)
		180	A252	3.03 (A252)	3.03 (A252)	3.03 (A252)	3.21 (A252)	3.21 (A252)	3.21 (A252)	3.44 (A252)	3.44 (A252)	3.44 (A252)
		190	A393	2.96 (A393)	2.96 (A393)	2.96 (A393)	3.15 (A393)	3.15 (A393)	3.15 (A393)	3.37 (A393)	3.37 (A393)	3.37 (A393)
		200	A393	2.90 (A393)	2.90 (A393)	2.90 (A393)	3.10 (A393)	3.10 (A393)	3.10 (A393)	3.32 (A393)	3.32 (A393)	3.32 (A393)
None	90 minutes	130	A142	3.40 (A252)	3.39 (A393)	3.38 (2xA252)	3.58 (A252)	3.57 (A393)	3.32 (2xA252)	3.83 (A252)	3.82 (A393)	3.19 (2xA252)
		140	A193	3.32 (A193)	3.30 (A393)	3.30 (2xA252)	3.50 (A193)	3.48 (A393)	3.48 (2xA252)	3.74 (A252)	3.73 (A393)	3.72 (2xA252)
		150	A193	3.24 (A193)	3.23 (A252)	3.23 (A393)	3.42 (A193)	3.40 (A393)	3.40 (2xA252)	3.66 (A193)	3.65 (A393)	3.64 (2xA252)
		160	A252	3.16 (A252)	3.16 (A252)	3.15 (A393)	3.34 (A252)	3.34 (A252)	3.33 (A393)	3.58 (A252)	3.57 (A393)	3.56 (2xA252)
		170	A252	3.09 (A252)	3.09 (A252)	3.09 (A252)	3.27 (A252)	3.27 (A252)	3.27 (A252)	3.51 (A252)	3.51 (A252)	3.50 (A393)
		180	A252	3.03 (A252)	3.03 (A252)	3.03 (A252)	3.21 (A252)	3.21 (A252)	3.21 (A252)	3.44 (A252)	3.44 (A252)	3.44 (A252)
		190	A393	2.96 (A393)	2.96 (A393)	2.96 (A393)	3.15 (A393)	3.15 (A393)	3.15 (A393)	3.37 (A393)	3.37 (A393)	3.37 (A393)
		200	A393	2.90 (A393)	2.90 (A393)	2.90 (A393)	3.10 (A393)	3.10 (A393)	3.10 (A393)	3.32 (A393)	3.32 (A393)	3.32 (A393)
None	120 minutes	140	A193	3.31 (A252)	3.30 (A393)	3.28 (2xA393)	3.49 (A252)	3.48 (A393)	3.46 (2xA393)	3.73 (A393)	3.72 (2xA252)	3.70 (2xA393)
		150	A193	3.24 (A193)	3.23 (A393)	3.22 (2xA252)	3.41 (A252)	3.40 (A393)	3.40 (2xA252)	3.65 (A252)	3.65 (A393)	3.62 (2xA393)
		160	A252	3.16 (A252)	3.16 (A252)	3.15 (A393)	3.34 (A252)	3.34 (A252)	3.33 (2xA252)	3.58 (A252)	3.57 (A393)	3.56 (2xA252)
		170	A252	3.09 (A252)	3.09 (A252)	3.09 (A252)	3.27 (A252)	3.27 (A252)	3.27 (A393)	3.51 (A252)	3.51 (A252)	3.50 (A393)
		180	A252	3.03 (A252)	3.03 (A252)	3.03 (A252)	3.21 (A252)	3.21 (A252)	3.21 (A252)	3.44 (A252)	3.44 (A252)	3.43 (A393)
		190	A393	2.96 (A393)	2.96 (A393)	2.96 (A393)	3.15 (A393)	3.15 (A393)	3.15 (A393)	3.37 (A393)	3.37 (A393)	3.37 (A393)
		200	A393	2.90 (A393)	2.90 (A393)	2.90 (A393)	3.10 (A393)	3.10 (A393)	3.10 (A393)	3.32 (A393)	3.32 (A393)	3.32 (A393)

Double span (m) - Mesh and Deck Fire Method - Beam width 152mm

Props	Fire period	Slab depth (mm)	Mesh 0.2% min.reqd*	Total applied load (kN/m²)								
				0.90mm			1.00mm			1.20mm		
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
None	60 minutes	120***	A142	3.47 (A193)	2.92 (A193)	2.46 (A193)	3.52 (A193)	2.96 (A193)	2.50 (A193)	3.62 (A193)	3.06 (A193)	2.59 (A193)
		130	A142	3.64 (A193)	3.62 (A393)	3.51 (2xA252)	3.93 (A252)	3.90 (A393)	3.51 (2xA252)	4.65 (A393)	4.38 (2xA252)	3.53 (2xA252)
		140	A193	3.50 (A193)	3.49 (A252)	3.47 (2xA252)	3.80 (A193)	3.78 (A393)	3.75 (2xA393)	4.50 (A393)	4.49 (2xA252)	4.24 (2xA393)
		150	A193	3.37 (A193)	3.37 (A193)	3.35 (A393)	3.75 (A193)	3.74 (A252)	3.73 (2xA252)	4.38 (A252)	4.37 (A393)	4.33 (2xA393)
		160	A252	3.24 (A252)	3.24 (A252)	3.24 (A252)	3.69 (A252)	3.69 (A252)	3.68 (A393)	4.26 (A252)	4.25 (A393)	4.21 (2xA393)
		170	A252	3.13 (A252)	3.13 (A252)	3.13 (A252)	3.57 (A252)	3.57 (A252)	3.56 (A393)	4.14 (A252)	4.14 (A252)	4.12 (2xA252)
		180	A252	3.03 (A252)	3.03 (A252)	3.03 (A252)	3.45 (A252)	3.45 (A252)	3.45 (A252)	4.03 (A252)	4.03 (A252)	4.02 (A393)
		190	A393	2.93 (A393)	2.93 (A393)	2.93 (A393)	3.34 (A393)	3.34 (A393)	3.34 (A393)	3.92 (A393)	3.92 (A393)	3.92 (A393)
		200	A393	2.85 (A393)	2.85 (A393)	2.85 (A393)	3.25 (A393)	3.25 (A393)	3.25 (A393)	3.89 (A393)	3.89 (A393)	3.89 (A393)
None	90 minutes	130	A142	3.62 (A393)	3.61 (2xA252)	2.97 (2xA252)	3.92 (A393)	3.65 (2xA252)	2.99 (2xA252)	4.64 (2xA252)	3.64 (2xA252)	3.01 (2xA252)
		140	A193	3.49 (A252)	3.37 (A393)	3.44 (2xA393)	3.78 (A393)	3.77 (2xA252)	3.75 (2xA393)	4.49 (2xA252)	4.47 (2xA393)	4.16 (2xA393)
		150	A193	3.37 (A193)	3.36 (A252)	3.33 (2xA252)	3.74 (A252)	3.73 (2xA252)	3.71 (2xA393)	4.37 (A393)	4.33 (2xA393)	4.33 (2xA393)
		160	A252	3.24 (A252)	3.24 (A252)	3.23 (A393)	3.69 (A252)	3.68 (A393)	3.64 (2xA393)	4.25 (A393)	4.24 (2xA252)	4.21 (2xA393)
		170	A252	3.13 (A252)	3.13 (A252)	3.12 (A393)	3.57 (A252)	3.57 (A252)	3.56 (A393)	4.14 (A252)	4.13 (A393)	4.10 (2xA393)
		180	A252	3.03 (A252)	3.03 (A252)	3.03 (A252)	3.45 (A252)	3.45 (A252)	3.44 (A393)	4.03 (A252)	4.02 (A393)	4.01 (2xA252)
		190	A393	2.93 (A393)	2.93 (A393)	2.93 (A393)	3.34 (A393)	3.34 (A393)	3.34 (A393)	3.92 (A393)	3.92 (A393)	3.92 (A393)
		200	A393	2.85 (A393)	2.85 (A393)	2.85 (A393)	3.25 (A393)	3.25 (A393)	3.25 (A393)	3.89 (A393)	3.89 (A393)	3.89 (A393)
None	120 minutes	140	A193	3.48 (A393)	3.47 (2xA252)	3.44 (2xA393)	3.78 (A393)	3.75 (2xA393)	3.52 (2xA393)	4.49 (2xA252)	4.47 (2xA393)	3.48 (2xA393)
		150	A193	3.37 (A193)	3.27 (A393)	3.31 (2xA393)	3.73 (A393)	3.73 (2xA252)	3.71 (2xA393)	4.36 (2xA252)	4.33 (2xA393)	3.95 (2xA393)
		160	A252	3.24 (A252)	3.24 (A252)	3.22 (2xA252)	3.69 (A252)	3.67 (2xA252)	3.64 (2xA393)	4.23 (A393)	4.21 (2xA393)	4.21 (2xA393)
		170	A252	3.13 (A252)	3.13 (A252)	3.12 (A393)	3.57 (A252)	3.53 (A393)	3.52 (2xA393)	4.13 (A393)	4.12 (2xA252)	4.10 (2xA393)
		180	A252	3.03 (A252)	3.03 (A252)	3.03 (A393)	3.45 (A252)	3.45 (A252)	3.44 (A393)	4.03 (A252)	4.02 (A393)	3.99 (2xA393)
		190	A393	2.93 (A393)	2.93 (A393)	2.93 (A393)	3.34 (A393)	3.34 (A393)	3.34 (A393)	3.92 (A393)	3.92 (A393)	3.91 (2xA252)
		200	A393	2.85 (A393)	2.85 (A393)	2.85 (A393)	3.25 (A393)	3.25 (A393)	3.25 (A393)	3.89 (A393)	3.89 (A393)	3.85 (A393)

Multi span (m) - Mesh and Deck Fire Method - Beam width 152mm

Props	Fire period	Slab depth (mm)	Mesh 0.2% min.reqd*	Total applied load (kN/m²)								
				0.90mm			1.00mm			1.20mm		
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
None	60 minutes	120***	A142	3.57 (A193)	2.94 (A193)	2.47 (A193)	3.57 (A193)	2.99 (A193)	2.51 (A193)	3.67 (A193)	3.08 (A193)	2.60 (A193)
		130	A142	3.60 (A193)	3.58 (A393)	3.57 (2xA252)	4.02 (A252)	4.00 (A393)	3.66 (2xA252)	4.46 (A393)	4.37 (2xA252)	3.59 (2xA252)
		140	A193	3.48 (A193)	3.48 (A252)	3.46 (2xA252)	3.89 (A193)	3.87 (A393)	3.86 (2xA252)	4.38 (A252)	4.37 (A393)	4.21 (2xA393)
		150	A193	3.46 (A193)	3.46 (A193)	3.45 (A393)	3.76 (A193)	3.76 (A252)	3.74 (2xA252)	4.30 (A193)	4.29 (A393)	4.27 (2xA393)
		160	A252	3.36 (A252)	3.36 (A252)	3.36 (A393)	3.65 (A252)	3.65 (A252)	3.64 (A393)	4.23 (A252)	4.23 (A393)	4.22 (2xA252)
		170	A252	3.25 (A252)	3.25 (A252)	3.25 (A252)	3.55 (A252)	3.55 (A252)	3.55 (A393)	4.16 (A252)	4.16 (A252)	4.15 (2xA252)
		180	A252	3.15 (A252)	3.15 (A252)	3.15 (A252)	3.54 (A252)	3.54 (A252)	3.54 (A393)	4.10 (A252)	4.10 (A252)	4.09 (A393)
		190	A393	3.05 (A393)	3.05 (A393)	3.05 (A393)	3.47 (A393)	3.47 (A393)	3.47 (A393)	4.01 (A393)	4.01 (A393)	4.01 (A393)
		200	A393	2.96 (A393)	2.96 (A393)	2.96 (A393)	3.37 (A393)	3.37 (A393)	3.37 (A393)	3.91 (A393)	3.91 (A393)	3.91 (A393)
None	90 minutes	130	A142	3.58 (A393)	3.57 (2xA252)	3.01 (2xA252)	4.00 (A393)	3.88 (2xA252)	3.01 (2xA252)	4.45 (2xA252)	3.72 (2xA252)	3.04 (2xA252)
		140	A193	3.48 (A252)	3.46 (A393)	3.45 (2xA393)	3.87 (A393)	3.86 (2xA252)	3.84 (2xA393)	4.37 (A393)	4.36 (2xA252)	4.21 (2xA393)
		150	A193	3.46 (A193)	3.45 (A393)	3.43 (2xA393)	3.76 (A252)	3.72 (A393)	3.72 (2xA393)	4.29 (A393)	4.29 (2xA252)	4.27 (2xA393)
		160	A252	3.36 (A252)	3.36 (A252)	3.35 (2xA252)	3.65 (A252)	3.64 (A393)	3.63 (2xA252)	4.22 (A393)	4.22 (2xA252)	4.20 (2xA393)
		170	A252	3.25 (A252)	3.25 (A252)	3.24 (A393)	3.55 (A252)	3.55 (A252)	3.55 (A393)	4.16 (A252)	4.15 (A393)	4.14 (2xA393)
		180	A252	3.15 (A252)	3.15 (A252)	3.15 (A252)	3.54 (A252)	3.54 (A252)	3.54 (A393)	4.10 (A252)	4.09 (A393)	4.08 (2xA393)
		190	A393	3.05 (A393)	3.05 (A393)	3.05 (A393)	3.47 (A393)	3.47 (A393)	3.47 (A393)	4.01 (A393)	4.01 (A393)	4.01 (A393)
		200	A393	2.96 (A393)	2.96 (A393)	2.96 (A393)	3.37 (A393)	3.37 (A393)	3.37 (A393)	3.91 (A393)	3.91 (A393)	3.91 (A393)
None	120 minutes	140	A193	3.47 (A393)	3.46 (2xA252)	3.45 (2xA393)	3.87 (A393)	3.84 (2xA393)	3.75 (2xA393)	4.36 (2xA252)	4.35 (2xA393)	3.55 (2xA393)
		150	A193	3.46 (A252)	3.45 (2xA252)	3.43 (2xA393)	3.75 (A393)	3.74 (2xA252)	3.72 (2xA393)	4.29 (A393)	4.27 (2xA393)	4.27 (2xA393)
		160	A252	3.36 (A252)	3.36 (A252)	3.33 (2xA393)	3.65 (A252)	3.63 (2xA252)	3.61 (2xA393)	4.22 (A393)	4.22 (2xA252)	4.20 (2xA393)
		170	A252									

ComFlor® 60 normal weight concrete / using mesh / unpropped / Eurocode

Single span deck continuous slab (m) - Bar Fire Method - Beam width 152mm

Props	Fire period	Slab depth (mm)	Mesh 0.2% min. reqd.*	Total applied load (kN/m²)								
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
				0.90mm			1.00mm			1.20mm		
None	60 minutes	120***	A142	3.49 (10)	3.49 (10)	3.49 (12)	3.68 (10)	3.67 (12)	3.60 (16)	3.93 (10)	3.93 (12)	3.61 (16)
		130	A142	3.40 (8)	3.40 (10)	3.39 (12)	3.58 (8)	3.58 (10)	3.57 (12)	3.83 (10)	3.82 (12)	3.81 (16)
		140	A193	3.31 (8)	3.31 (8)	3.31 (10)	3.49 (8)	3.49 (10)	3.48 (12)	3.74 (8)	3.73 (10)	3.73 (12)
		150	A193	3.23 (8)	3.23 (8)	3.23 (10)	3.41 (8)	3.41 (8)	3.41 (10)	3.65 (8)	3.65 (10)	3.65 (12)
		160	A252	3.15 (8)	3.15 (8)	3.15 (8)	3.34 (8)	3.34 (8)	3.33 (10)	3.57 (8)	3.57 (8)	3.57 (10)
		170	A252	3.09 (8)	3.09 (8)	3.09 (8)	3.27 (8)	3.27 (8)	3.27 (8)	3.50 (8)	3.50 (8)	3.50 (10)
		180	A252	3.02 (8)	3.02 (8)	3.02 (8)	3.21 (8)	3.21 (8)	3.21 (8)	3.44 (8)	3.44 (8)	3.44 (10)
		190	A393	2.96 (8)	2.96 (8)	2.96 (8)	3.15 (8)	3.15 (8)	3.15 (8)	3.37 (8)	3.37 (8)	3.37 (8)
200	A393	2.90 (8)	2.90 (8)	2.90 (8)	3.09 (8)	3.09 (8)	3.09 (8)	3.32 (8)	3.32 (8)	3.32 (8)		
None	90 minutes	130	A142	3.39 (12)	3.39 (16)	3.39 (16)	3.57 (12)	3.56 (16)	3.55 (20)	3.81 (16)	3.81 (16)	3.80 (20)
		140	A193	3.31 (12)	3.30 (16)	3.30 (16)	3.48 (12)	3.48 (16)	3.48 (16)	3.73 (12)	3.72 (16)	3.71 (20)
		150	A193	3.23 (10)	3.23 (12)	3.22 (16)	3.41 (10)	3.40 (12)	3.40 (16)	3.65 (12)	3.64 (16)	3.64 (16)
		160	A252	3.15 (8)	3.15 (10)	3.14 (16)	3.34 (8)	3.33 (10)	3.32 (16)	3.57 (10)	3.56 (16)	3.56 (16)
		170	A252	3.09 (8)	3.08 (8)	3.08 (12)	3.27 (8)	3.27 (10)	3.26 (12)	3.50 (10)	3.50 (10)	3.49 (16)
		180	A252	3.02 (8)	3.02 (8)	3.02 (10)	3.21 (8)	3.21 (10)	3.20 (12)	3.44 (8)	3.44 (10)	3.43 (12)
		190	A393	2.96 (8)	2.96 (8)	2.96 (8)	3.15 (8)	3.15 (8)	3.14 (10)	3.37 (8)	3.37 (8)	3.37 (10)
		200	A393	2.90 (8)	2.90 (8)	2.90 (8)	3.09 (8)	3.09 (8)	3.09 (8)	3.32 (8)	3.32 (8)	3.31 (10)
None	120 minutes	140	A193	3.29 (20)	3.27 (25)	3.25 (32)	3.45 (25)	3.44 (25)	3.42 (32)	3.69 (25)	3.66 (32)	3.66 (32)
		150	A193	3.22 (16)	3.20 (25)	3.20 (25)	3.39 (20)	3.37 (25)	3.35 (32)	3.61 (25)	3.61 (25)	3.58 (32)
		160	A252	3.14 (16)	3.14 (16)	3.12 (25)	3.32 (16)	3.31 (20)	3.30 (25)	3.56 (16)	3.54 (25)	3.51 (32)
		170	A252	3.08 (12)	3.08 (16)	3.07 (20)	3.26 (16)	3.25 (20)	3.24 (25)	3.49 (16)	3.48 (20)	3.47 (25)
		180	A252	3.02 (12)	3.01 (16)	3.00 (20)	3.20 (12)	3.20 (16)	3.19 (20)	3.43 (16)	3.42 (20)	3.41 (25)
		190	A393	2.96 (8)	2.96 (10)	2.95 (16)	3.15 (8)	3.14 (12)	3.14 (16)	3.37 (10)	3.36 (16)	3.35 (20)
		200	A393	2.90 (8)	2.90 (8)	2.90 (12)	3.09 (8)	3.09 (10)	3.08 (16)	3.31 (10)	3.31 (12)	3.31 (16)

Double span (m) - Bar Fire Method - Beam width 152mm

Props	Fire period	Slab depth (mm)	Mesh 0.2% min. reqd.*	Total applied load (kN/m²)								
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
				0.90mm			1.00mm			1.20mm		
None	60 minutes	120***	A142	3.68 (10)	3.67 (12)	3.64 (16)	4.07 (12)	4.07 (12)	3.70 (16)	4.70 (12)	4.62 (25)	3.70 (16)
		130	A142	3.63 (10)	3.63 (10)	3.62 (12)	3.93 (10)	3.92 (12)	3.91 (16)	4.65 (12)	4.62 (16)	3.99 (16)
		140	A193	3.49 (8)	3.48 (10)	3.48 (12)	3.79 (10)	3.79 (10)	3.78 (12)	4.50 (12)	4.50 (12)	4.25 (16)
		150	A193	3.36 (8)	3.36 (8)	3.35 (10)	3.74 (8)	3.74 (10)	3.74 (12)	4.38 (10)	4.37 (12)	4.36 (16)
		160	A252	3.24 (8)	3.24 (8)	3.23 (10)	3.68 (8)	3.68 (10)	3.67 (12)	4.25 (10)	4.24 (10)	4.23 (12)
		170	A252	3.13 (8)	3.13 (8)	3.13 (8)	3.56 (8)	3.56 (8)	3.56 (10)	4.13 (8)	4.13 (10)	4.12 (12)
		180	A252	3.03 (8)	3.03 (8)	3.03 (8)	3.45 (8)	3.45 (8)	3.45 (10)	4.02 (8)	4.02 (10)	4.02 (12)
		190	A393	2.93 (8)	2.93 (8)	2.93 (8)	3.34 (8)	3.34 (8)	3.34 (8)	3.91 (8)	3.91 (8)	3.91 (10)
200	A393	2.85 (8)	2.85 (8)	2.85 (8)	3.24 (8)	3.24 (8)	3.24 (8)	3.88 (8)	3.88 (8)	3.88 (10)		
None	90 minutes	130	A142	3.61 (16)	3.61 (16)	3.59 (20)	3.91 (16)	3.91 (16)	3.89 (20)	4.64 (16)	4.62 (20)	3.97 (20)
		140	A193	3.48 (12)	3.46 (16)	3.46 (16)	3.77 (16)	3.77 (16)	3.75 (20)	4.49 (16)	4.47 (20)	4.24 (20)
		150	A193	3.35 (10)	3.34 (16)	3.34 (16)	3.74 (12)	3.73 (16)	3.72 (20)	4.36 (16)	4.34 (20)	4.34 (20)
		160	A252	3.24 (8)	3.23 (10)	3.21 (16)	3.68 (10)	3.66 (16)	3.66 (16)	4.23 (16)	4.23 (16)	4.21 (20)
		170	A252	3.13 (8)	3.12 (10)	3.12 (12)	3.56 (10)	3.55 (12)	3.54 (16)	4.12 (12)	4.11 (16)	4.10 (20)
		180	A252	3.03 (8)	3.03 (8)	3.03 (10)	3.45 (8)	3.45 (10)	3.44 (12)	4.01 (10)	4.01 (16)	4.01 (16)
		190	A393	2.93 (8)	2.93 (8)	2.93 (8)	3.34 (8)	3.34 (8)	3.33 (10)	3.91 (8)	3.91 (10)	3.89 (16)
		200	A393	2.85 (8)	2.85 (8)	2.85 (8)	3.24 (8)	3.24 (8)	3.24 (10)	3.88 (8)	3.88 (10)	3.88 (12)
None	120 minutes	140	A193	3.42 (25)	3.42 (25)	3.37 (32)	3.73 (25)	3.69 (32)	3.69 (32)	4.39 (32)	4.39 (32)	3.76 (32)
		150	A193	3.32 (20)	3.29 (25)	3.25 (32)	3.70 (25)	3.67 (32)	3.67 (32)	4.27 (32)	4.27 (32)	3.97 (32)
		160	A252	3.21 (16)	3.20 (20)	3.18 (25)	3.64 (20)	3.62 (25)	3.57 (32)	4.19 (25)	4.15 (32)	4.15 (32)
		170	A252	3.12 (12)	3.11 (16)	3.10 (20)	3.54 (16)	3.52 (20)	3.46 (32)	4.08 (20)	4.04 (32)	4.04 (32)
		180	A252	3.02 (12)	3.01 (16)	3.00 (20)	3.43 (16)	3.42 (20)	3.39 (25)	3.99 (20)	3.97 (25)	3.93 (32)
		190	A393	2.93 (8)	2.93 (10)	2.91 (16)	3.33 (10)	3.32 (16)	3.31 (20)	3.89 (16)	3.88 (20)	3.86 (25)
		200	A393	2.85 (8)	2.85 (8)	2.84 (12)	3.24 (8)	3.23 (12)	3.22 (16)	3.87 (16)	3.87 (20)	3.85 (25)

Multi span (m) - Bar Fire Method - Beam width 152mm

Props	Fire period	Slab depth (mm)	Mesh 0.2% min. reqd.*	Total applied load (kN/m²)								
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
				0.90mm			1.00mm			1.20mm		
None	60 minutes	120***	A142	3.73 (10)	3.73 (12)	3.64 (16)	4.15 (12)	4.15 (12)	3.64 (16)	4.56 (12)	4.52 (20)	3.70 (16)
		130	A142	3.59 (10)	3.59 (10)	3.59 (12)	4.01 (10)	4.01 (12)	3.94 (16)	4.46 (12)	4.45 (16)	3.95 (16)
		140	A193	3.47 (8)	3.47 (10)	3.47 (12)	3.88 (10)	3.88 (10)	3.87 (12)	4.37 (10)	4.37 (12)	4.23 (16)
		150	A193	3.46 (8)	3.46 (10)	3.46 (10)	3.76 (8)	3.76 (10)	3.75 (12)	4.30 (10)	4.29 (12)	4.29 (16)
		160	A252	3.36 (8)	3.36 (8)	3.36 (10)	3.64 (8)	3.64 (8)	3.64 (10)	4.22 (8)	4.22 (10)	4.22 (12)
		170	A252	3.25 (8)	3.25 (8)	3.25 (8)	3.55 (8)	3.55 (8)	3.55 (10)	4.16 (8)	4.16 (10)	4.15 (12)
		180	A252	3.14 (8)	3.14 (8)	3.14 (8)	3.54 (8)	3.54 (8)	3.54 (10)	4.10 (8)	4.09 (10)	4.09 (12)
		190	A393	3.04 (8)	3.04 (8)	3.04 (8)	3.46 (8)	3.46 (8)	3.46 (8)	4.00 (8)	4.00 (8)	4.00 (10)
200	A393	2.95 (8)	2.95 (8)	2.95 (8)	3.36 (8)	3.36 (8)	3.36 (8)	3.91 (8)	3.91 (8)	3.91 (10)		
None	90 minutes	130	A142	3.58 (16)	3.58 (16)	3.56 (20)	4.00 (16)	4.00 (16)	3.93 (20)	4.45 (16)	4.44 (20)	3.94 (20)
		140	A193	3.47 (12)	3.46 (16)	3.46 (16)	3.86 (16)	3.86 (16)	3.85 (20)	4.36 (16)	4.35 (20)	4.22 (20)
		150	A193	3.46 (10)	3.45 (16)	3.45 (16)	3.75 (12)	3.74 (16)	3.73 (20)	4.29 (16)	4.29 (16)	4.28 (20)
		160	A252	3.36 (8)	3.36 (10)	3.36 (16)	3.64 (10)	3.62 (16)	3.62 (16)	4.21 (16)	4.21 (16)	4.20 (20)
		170	A252	3.25 (8)	3.24 (10)	3.24 (12)	3.55 (10)	3.54 (12)	3.54 (16)	4.15 (12)	4.15 (16)	4.14 (20)
		180	A252	3.14 (8)	3.14 (8)	3.14 (12)	3.54 (8)	3.54 (10)	3.53 (16)	4.09 (12)	4.09 (16)	4.09 (16)
		190	A393	3.04 (8)	3.04 (8)	3.04 (8)	3.46 (8)	3.46 (8)	3.46 (12)	4.00 (10)	4.00 (12)	3.99 (16)
		200	A393	2.95 (8)	2.95 (8)	2.95 (8)	3.36 (8)	3.36 (8)	3.36 (10)	3.91 (8)	3.91 (10)	3.90 (12)
None	120 minutes	140	A193	3.44 (25)	3.44 (25)	3.41 (32)	3.82 (25)	3.78 (32)	3.78 (32)	4.31 (32)	4.31 (32)	3.82 (32)
		150	A193	3.44 (20)	3.42 (25)	3.39 (32)	3.70 (25)	3.70 (25)	3.67 (32)	4.26 (25)	4.23 (32)	4.02 (32)
		160	A252	3.34 (16)	3.33 (20)	3.31 (25)	3.61 (20)	3.59 (25)	3.56 (32)	4.19 (25)	4.16 (32)	4.16 (32)
		170	A252	3.23 (16)	3.22 (20)	3.20 (25)	3.54 (16)	3.53 (20)	3.50 (32)	4.12 (25)	4.10 (32)	4.10 (32)
		180	A252	3.14 (12)	3.13 (16)	3.12 (20)	3.53 (16)	3.52 (20)	3.51 (25)	4.08 (20)	4.06 (25)	4.03 (32)
		190	A393	3.04 (8)	3.04 (10)	3.03 (16)	3.46 (12)	3.45 (16)	3.43 (20)	3.99 (16)	3.98 (20)	3.96 (25)
		200	A393	2.95 (8)	2.95 (8)	2.94 (16)	3.36 (10)	3.35 (16)	3.34 (20)	3.89 (16)	3.88 (20)	3.87 (25)

Spans are based on beam centres, with a 152mm flange width and a minimum end bearing of 50mm.

* In accordance with BS EN 1994-1-1 Clause 9.8.1 (2) - Where the continuous slabs are designed as simply-supported in accordance with 9.4.2 (5), the minimum cross-sectional area of anti-crack mesh reinforcement above the ribs should not be less than 0.2% of the cross-sectional area of concrete above the ribs for unpropped construction. In order to maximise the FIRE LIMIT STATE spans, increased mesh sizing is required as specified in the above Bar Fire Method tables.

*** All mesh covers for all profile types and slab depths are taken as 30mm. However, due to mesh size restriction, the ComFlor® 60 120mm slab depth requires a mesh cover depth of 25mm.

ComFlor® 60 normal weight concrete / using mesh / propped / Eurocode

Single Span propped deck, continuous slab (m) - Mesh and Deck Fire Method - Beam width 152mm (Refer to Technical Department for Double Span propped deck tables.) (Note: Single span deck single span slab is only permitted using Bar Fire Method.)

Props	Fire period	Slab depth (mm)	Mesh 0.4% min. reqd**	Total applied load (kN/m ²)								
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
				0.90mm			1.00mm			1.20mm		
1 line	60 minutes	120***	A252	3.93 (A393)	3.39 (A393)	3.09 (A393)	3.93 (A393)	3.39 (A393)	3.10 (A393)	3.95 (A393)	3.41 (A393)	3.12 (A393)
		130	A393	4.27 (2xA252)	3.75 (2xA252)	3.21 (2xA252)	4.33 (2xA252)	3.79 (2xA252)	3.25 (2xA252)	4.45 (2xA252)	3.87 (2xA252)	3.32 (2xA252)
		140	A393	4.48 (2xA393)	4.17 (2xA393)	3.78 (2xA393)	4.55 (2xA393)	4.23 (2xA393)	3.81 (2xA393)	4.67 (2xA393)	4.34 (2xA393)	3.87 (2xA393)
		150	A393	4.72 (2xA252)	4.39 (2xA393)	3.84 (2xA393)	4.79 (2xA252)	4.45 (2xA393)	3.87 (2xA393)	4.89 (2xA393)	4.55 (2xA393)	3.93 (2xA393)
		160	2xA252	4.94 (2xA252)	4.61 (2xA393)	4.00 (2xA393)	5.01 (2xA252)	4.63 (2xA393)	4.01 (2xA393)	5.13 (2xA252)	4.65 (2xA393)	4.03 (2xA393)
		170	2xA252	4.83 (2xA252)	4.78 (2xA393)	4.42 (2xA393)	5.22 (2xA252)	4.88 (2xA393)	4.42 (2xA393)	5.35 (2xA252)	5.00 (2xA393)	4.42 (2xA393)
		180	2xA252	4.67 (2xA252)	4.67 (2xA252)	4.64 (2xA393)	5.33 (2xA393)	5.01 (2xA393)	4.77 (2xA393)	5.56 (2xA393)	5.20 (2xA393)	4.84 (2xA393)
		190	2xA393	4.50 (2xA393)	4.50 (2xA393)	4.50 (2xA393)	5.16 (2xA393)	5.14 (2xA393)	4.85 (2xA393)	5.68 (2xA393)	5.33 (2xA393)	4.92 (2xA393)
		200	2xA393	4.36 (2xA393)	4.36 (2xA393)	4.36 (2xA393)	5.01 (2xA393)	5.01 (2xA393)	4.93 (2xA393)	5.81 (2xA393)	5.46 (2xA393)	5.00 (2xA393)
1 line	90 minutes	130	A393	3.80 (2xA252)	3.29 (2xA252)	2.83 (2xA393)	3.83 (2xA252)	3.32 (2xA252)	2.85 (2xA252)	3.90 (2xA252)	3.38 (2xA252)	2.90 (2xA252)
		140	A393	4.48 (2xA393)	4.03 (2xA393)	3.47 (2xA393)	4.55 (2xA393)	4.06 (2xA393)	3.49 (2xA393)	4.67 (2xA393)	4.10 (2xA393)	3.53 (2xA393)
		150	A393	4.68 (2xA393)	4.10 (2xA393)	3.55 (2xA393)	4.71 (2xA393)	4.14 (2xA393)	3.57 (2xA393)	4.77 (2xA393)	4.19 (2xA393)	3.61 (2xA393)
		160	2xA252	4.73 (2xA393)	4.16 (2xA393)	3.61 (2xA393)	4.76 (2xA393)	4.19 (2xA393)	3.63 (2xA393)	4.82 (2xA393)	4.24 (2xA393)	3.68 (2xA393)
		170	2xA252	4.81 (2xA252)	4.21 (2xA393)	3.66 (2xA393)	4.80 (2xA393)	4.24 (2xA393)	3.69 (2xA393)	4.86 (2xA393)	4.29 (2xA393)	3.73 (2xA393)
		180	2xA252	4.67 (2xA252)	4.51 (2xA393)	3.94 (2xA393)	5.09 (2xA393)	4.51 (2xA393)	3.94 (2xA393)	5.10 (2xA393)	4.52 (2xA393)	3.94 (2xA393)
		190	2xA393	4.50 (2xA393)	4.50 (2xA393)	4.31 (2xA393)	5.16 (2xA393)	4.93 (2xA393)	4.31 (2xA393)	5.55 (2xA393)	4.94 (2xA393)	4.32 (2xA393)
		200	2xA393	4.36 (2xA393)	4.36 (2xA393)	4.36 (2xA393)	5.01 (2xA393)	5.01 (2xA393)	4.68 (2xA393)	5.81 (2xA393)	5.33 (2xA393)	4.68 (2xA393)
		1 line	120 minutes	140	A393	4.23 (2xA393)	3.69 (2xA393)	3.18 (2xA393)	4.25 (2xA393)	3.71 (2xA393)	3.20 (2xA393)	4.29 (2xA393)
150	A393			4.46 (2xA393)	3.90 (2xA393)	3.37 (2xA393)	4.48 (2xA393)	3.92 (2xA393)	3.39 (2xA393)	4.52 (2xA393)	3.96 (2xA393)	3.42 (2xA393)
160	2xA252			4.54 (2xA393)	4.00 (2xA393)	3.47 (2xA393)	4.57 (2xA393)	4.02 (2xA393)	3.48 (2xA393)	4.61 (2xA393)	4.05 (2xA393)	3.52 (2xA393)
170	2xA252			4.59 (2xA393)	4.05 (2xA393)	3.52 (2xA393)	4.61 (2xA393)	4.07 (2xA393)	3.54 (2xA393)	4.65 (2xA393)	4.11 (2xA393)	3.58 (2xA393)
180	2xA252			4.67 (2xA252)	4.14 (2xA393)	3.62 (2xA393)	4.68 (2xA393)	4.15 (2xA393)	3.62 (2xA393)	4.70 (2xA393)	4.17 (2xA393)	3.63 (2xA393)
190	2xA393			4.50 (2xA393)	4.48 (2xA393)	3.92 (2xA393)	5.03 (2xA393)	4.47 (2xA393)	3.91 (2xA393)	5.03 (2xA393)	4.47 (2xA393)	3.91 (2xA393)
200	2xA393			4.36 (2xA393)	4.36 (2xA393)	4.24 (2xA393)	5.01 (2xA393)	4.83 (2xA393)	4.24 (2xA393)	5.42 (2xA393)	4.84 (2xA393)	4.24 (2xA393)

ComFlor® 60 normal weight concrete / using mesh / propped / Eurocode

Single Span propped deck, continuous slab (m) - Bar Fire Method - Beam width 152mm (Refer to Technical Department for Double Span propped deck tables.) (Note: Single span deck single span slab is only permitted using Bar Fire Method.)

Props	Fire period	Slab depth (mm)	Mesh 0.4% min. reqd**	Total applied load (kN/m ²)								
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
				0.90mm			1.00mm			1.20mm		
1 line	60 minutes	120***	A252	4.48 (32)	4.16 (32)	3.69 (20)	4.51 (32)	4.19 (32)	3.69 (16)	4.57 (32)	4.24 (32)	3.69 (16)
		130	A393	4.77 (32)	4.44 (32)	4.02 (25)	4.80 (32)	4.47 (32)	4.01 (25)	4.86 (32)	4.52 (32)	4.02 (25)
		140	A393	5.06 (32)	4.72 (32)	4.32 (25)	5.09 (32)	4.75 (32)	4.34 (25)	5.14 (32)	4.80 (32)	4.33 (25)
		150	A393	5.10 (25)	4.99 (32)	4.63 (32)	5.36 (32)	5.02 (32)	4.62 (32)	5.42 (32)	5.07 (32)	4.64 (25)
		160	2xA252	4.98 (10)	4.94 (20)	4.85 (32)	5.57 (32)	5.27 (32)	4.92 (32)	5.68 (32)	5.33 (32)	4.90 (25)
		170	2xA252	4.81 (10)	4.81 (12)	4.79 (16)	5.48 (20)	5.38 (32)	5.21 (32)	5.95 (32)	5.58 (32)	5.20 (32)
		180	2xA252	4.66 (8)	4.65 (10)	4.63 (16)	5.34 (10)	5.32 (16)	5.27 (25)	6.20 (32)	5.84 (32)	5.48 (32)
		190	2xA393	4.49 (8)	4.49 (8)	4.48 (10)	5.15 (8)	5.15 (10)	5.13 (16)	6.28 (32)	6.08 (32)	5.73 (32)
		200	2xA393	4.35 (8)	4.35 (8)	4.35 (10)	5.00 (8)	5.00 (10)	4.99 (12)	6.19 (20)	6.14 (25)	6.01 (32)
1 line	90 minutes	130	A393	4.77 (32)	4.44 (32)	4.02 (25)	4.80 (32)	4.47 (32)	4.01 (25)	4.86 (32)	4.52 (32)	4.00 (25)
		140	A393	5.06 (32)	4.72 (32)	4.32 (25)	5.09 (32)	4.75 (32)	4.34 (25)	5.14 (32)	4.80 (32)	4.33 (25)
		150	A393	5.10 (25)	4.99 (32)	4.63 (32)	5.36 (32)	5.02 (32)	4.62 (32)	5.42 (32)	5.07 (32)	4.64 (25)
		160	2xA252	4.94 (20)	4.94 (20)	4.85 (32)	5.57 (32)	5.27 (32)	4.92 (32)	5.68 (32)	5.33 (32)	4.90 (25)
		170	2xA252	4.79 (16)	4.77 (20)	4.74 (25)	5.48 (20)	5.38 (32)	5.21 (32)	5.95 (32)	5.58 (32)	5.20 (32)
		180	2xA252	4.65 (12)	4.63 (16)	4.62 (20)	5.30 (20)	5.30 (20)	5.27 (25)	6.20 (32)	5.84 (32)	5.48 (32)
		190	2xA393	4.48 (10)	4.47 (16)	4.45 (20)	5.13 (16)	5.11 (20)	5.08 (25)	6.28 (32)	6.08 (32)	5.73 (32)
		200	2xA393	4.35 (10)	4.35 (12)	4.33 (16)	4.99 (12)	4.98 (16)	4.96 (20)	6.19 (20)	6.14 (25)	6.01 (32)
		1 line	120 minutes	140	A393	4.78 (32)	4.18 (32)	3.61 (32)	4.78 (32)	4.18 (32)	3.61 (32)	4.77 (32)
150	A393			4.94 (32)	4.34 (32)	3.76 (32)	4.94 (32)	4.34 (32)	3.76 (32)	4.94 (32)	4.34 (32)	3.76 (32)
160	2xA252			4.85 (32)	4.46 (32)	3.87 (32)	5.05 (32)	4.46 (32)	3.87 (32)	5.05 (32)	4.45 (32)	3.87 (32)
170	2xA252			4.69 (32)	4.61 (32)	4.01 (32)	5.20 (32)	4.60 (32)	4.01 (32)	5.19 (32)	4.60 (32)	4.01 (32)
180	2xA252			4.59 (25)	4.54 (32)	4.16 (32)	5.21 (32)	4.75 (32)	4.15 (32)	5.34 (32)	4.75 (32)	4.15 (32)
190	2xA393			4.45 (20)	4.42 (25)	4.27 (32)	5.03 (32)	4.87 (32)	4.27 (32)	5.45 (32)	4.87 (32)	4.27 (32)
200	2xA393			4.32 (20)	4.30 (25)	4.26 (32)	4.93 (25)	4.89 (32)	4.41 (32)	5.60 (32)	5.01 (32)	4.41 (32)

Spans are based on beam centres, with a 152mm flange width and a minimum end bearing of 50mm.

** In accordance with BS EN 1994-1-1 Clause 9.8.1 (2) - Where the continuous slabs are designed as simply-supported in accordance with 9.4.2 (5), the minimum cross-sectional area of anti-crack mesh reinforcement above the ribs should not be less than 0.4% of the cross-sectional area of concrete above the ribs for propped construction. In order to maximise the FIRE LIMIT STATE spans, increased mesh sizing is required as specified in the above as specified in the the above Mesh and Deck Fire Method and Bar Fire Method tables.

*** All mesh covers for all profile types and slab depths are taken as 30mm. However, due to mesh size restriction, the ComFlor® 60 120mm slab depth requires a mesh cover depth of 25mm.

Further help and advice

Tata Steel offers a comprehensive advisory service on the design of composite flooring, available free of charge to specifiers and designers. Please contact the Technical Department reference the

loading method for the current British Standard tables or any other technical queries not covered by this datasheet or by the ComFlor® 9 software on T: +44 (0) 1244 892199

Comprehensive ComFlor® 9 Software is also freely available to all professionals by registering at www.tatasteelconstruction.com/comflor

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