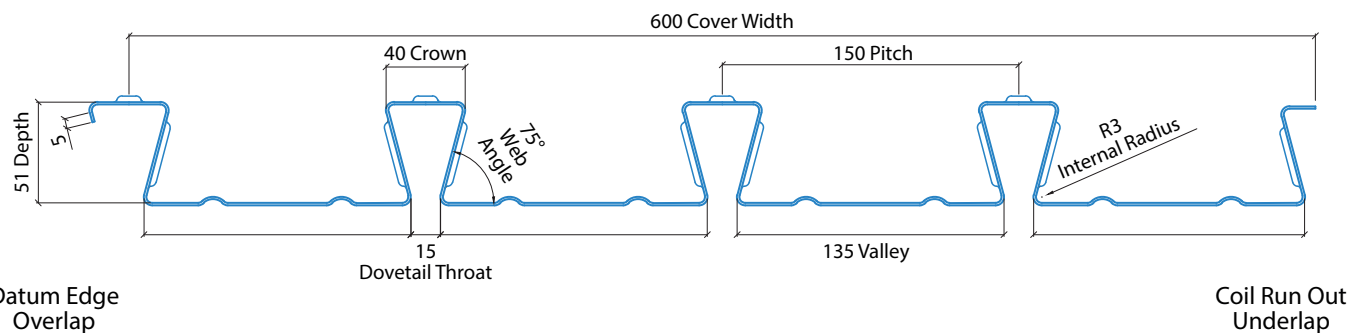


Load/span tables

ComFlor® 51+ Profile - 0.90, 1.00 and 1.20mm steel 350N/mm²

ComFlor® 51+ is a completely new profile that is the latest evolution of a long line of re-entrant profile design, the favoured profile shape for a vast number of projects in Britain since the 1970s. It provides a virtually flat soffit and the best available composite deck fire performance for both slab and beams. The new embossments give excellent composite slab strength characteristics and the classic re-entrant profile shape the most effective shear stud interaction. Dovetail grooves at 150mm centre provide the best possible anchorage for services underneath.



Note: all dimensions in mm

The quick reference load/span tables for ComFlor® 51+ 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® 51+ 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/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		
None	60 minutes	101	A142	2.79 (A142)	2.79 (A142)	2.79 (A193)	3.01 (A142)	3.01 (A142)	3.01 (A193)	3.37 (A142)	3.37 (A142)	3.37 (A252)
		110	A142	2.72 (A142)	2.72 (A142)	2.72 (A142)	2.94 (A142)	2.94 (A142)	2.94 (A142)	3.29 (A142)	3.29 (A142)	3.29 (A193)
		120	A142	2.65 (A142)	2.65 (A142)	2.65 (A142)	2.86 (A142)	2.86 (A142)	2.86 (A142)	3.21 (A142)	3.21 (A142)	3.21 (A142)
		130	A193	2.61 (A142)	2.61 (A193)	2.61 (A193)	2.79 (A193)	2.79 (A193)	2.79 (A193)	3.14 (A193)	3.14 (A193)	3.14 (A193)
		140	A193	2.59 (A193)	2.59 (A193)	2.59 (A193)	2.73 (A193)	2.73 (A193)	2.73 (A193)	3.07 (A193)	3.07 (A193)	3.07 (A193)
		150	A252	2.52 (A252)	2.52 (A252)	2.52 (A252)	2.67 (A252)	2.67 (A252)	2.67 (A252)	3.01 (A252)	3.01 (A252)	3.01 (A252)
		160	A252	2.47 (A252)	2.47 (A252)	2.47 (A252)	2.61 (A252)	2.61 (A252)	2.61 (A252)	2.95 (A252)	2.95 (A252)	2.95 (A252)
		170	A252	2.41 (A252)	2.41 (A252)	2.41 (A252)	2.56 (A252)	2.56 (A252)	2.56 (A252)	2.89 (A252)	2.89 (A252)	2.89 (A252)
		180	A393	2.36 (A393)	2.36 (A393)	2.36 (A393)	2.51 (A393)	2.51 (A393)	2.51 (A393)	2.83 (A393)	2.83 (A393)	2.83 (A393)
		190	A393	2.31 (A393)	2.31 (A393)	2.31 (A393)	2.46 (A393)	2.46 (A393)	2.46 (A393)	2.78 (A393)	2.78 (A393)	2.78 (A393)
200	A393	2.27 (A393)	2.27 (A393)	2.27 (A393)	2.42 (A393)	2.42 (A393)	2.42 (A393)	2.74 (A393)	2.74 (A393)	2.74 (A393)		
None	90 minutes	110	A142	2.72 (A142)	2.72 (A193)	2.71 (A393)	2.94 (A142)	2.93 (A193)	2.92 (A393)	3.29 (A142)	3.29 (A252)	3.27 (2xA252)
		120	A142	2.65 (A142)	2.65 (A142)	2.65 (A252)	2.86 (A142)	2.86 (A142)	2.86 (A252)	3.21 (A142)	3.21 (A193)	3.20 (A393)
		130	A193	2.61 (A193)	2.61 (A193)	2.61 (A193)	2.79 (A193)	2.79 (A193)	2.79 (A193)	3.14 (A193)	3.14 (A193)	3.14 (A252)
		140	A193	2.59 (A193)	2.59 (A193)	2.59 (A193)	2.73 (A193)	2.73 (A193)	2.73 (A193)	3.07 (A193)	3.07 (A193)	3.07 (A252)
		150	A252	2.52 (A252)	2.52 (A252)	2.52 (A252)	2.67 (A252)	2.67 (A252)	2.67 (A252)	3.01 (A252)	3.01 (A252)	3.01 (A252)
		160	A252	2.47 (A252)	2.47 (A252)	2.47 (A252)	2.61 (A252)	2.61 (A252)	2.61 (A252)	2.95 (A252)	2.95 (A252)	2.95 (A252)
		170	A252	2.41 (A252)	2.41 (A252)	2.41 (A252)	2.56 (A252)	2.56 (A252)	2.56 (A252)	2.89 (A252)	2.89 (A252)	2.89 (A252)
		180	A393	2.36 (A393)	2.36 (A393)	2.36 (A393)	2.51 (A393)	2.51 (A393)	2.51 (A393)	2.83 (A393)	2.83 (A393)	2.83 (A393)
		190	A393	2.31 (A393)	2.31 (A393)	2.31 (A393)	2.46 (A393)	2.46 (A393)	2.46 (A393)	2.78 (A393)	2.78 (A393)	2.78 (A393)
		200	A393	2.27 (A393)	2.27 (A393)	2.27 (A393)	2.42 (A393)	2.42 (A393)	2.42 (A393)	2.74 (A393)	2.74 (A393)	2.74 (A393)
None	120 minutes	125	A193	2.62 (A193)	2.62 (A193)	2.61 (A393)	2.82 (A193)	2.82 (A193)	2.82 (A393)	3.18 (A193)	3.17 (A252)	3.17 (A393)
		130	A193	2.61 (A193)	2.61 (A193)	2.61 (A252)	2.79 (A193)	2.79 (A193)	2.78 (A393)	3.14 (A193)	3.14 (A193)	3.13 (A393)
		140	A193	2.59 (A193)	2.59 (A193)	2.59 (A252)	2.73 (A193)	2.73 (A193)	2.72 (A252)	3.07 (A193)	3.07 (A193)	3.07 (A393)
		150	A252	2.52 (A252)	2.52 (A252)	2.52 (A252)	2.67 (A252)	2.67 (A252)	2.66 (A252)	3.01 (A252)	3.01 (A252)	3.01 (A252)
		160	A252	2.47 (A252)	2.47 (A252)	2.47 (A252)	2.61 (A252)	2.61 (A252)	2.61 (A252)	2.95 (A252)	2.95 (A252)	2.95 (A252)
		170	A252	2.41 (A252)	2.41 (A252)	2.41 (A252)	2.56 (A252)	2.56 (A252)	2.56 (A252)	2.89 (A252)	2.89 (A252)	2.89 (A252)
		180	A393	2.36 (A393)	2.36 (A393)	2.36 (A393)	2.51 (A393)	2.51 (A393)	2.51 (A393)	2.83 (A393)	2.83 (A393)	2.83 (A393)
		190	A393	2.31 (A393)	2.31 (A393)	2.31 (A393)	2.46 (A393)	2.46 (A393)	2.46 (A393)	2.78 (A393)	2.78 (A393)	2.78 (A393)
		200	A393	2.27 (A393)	2.27 (A393)	2.27 (A393)	2.42 (A393)	2.42 (A393)	2.42 (A393)	2.74 (A393)	2.74 (A393)	2.74 (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/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		
None	60 minutes	101	A142	3.09 (A142)	3.09 (A142)	3.08 (A393)	3.35 (A142)	3.35 (A193)	3.34 (A393)	3.88 (A142)	3.88 (A252)	3.47 (A393)
		110	A142	3.08 (A142)	3.08 (A142)	3.08 (A252)	3.27 (A142)	3.27 (A142)	3.26 (A393)	3.79 (A142)	3.78 (A193)	3.77 (2xA193)
		120	A142	3.00 (A142)	3.00 (A142)	2.99 (A193)	3.18 (A142)	3.18 (A142)	3.18 (A193)	3.69 (A142)	3.69 (A142)	3.68 (A393)
		130	A193	2.91 (A193)	2.91 (A193)	2.91 (A193)	3.17 (A193)	3.17 (A193)	3.17 (A193)	3.59 (A193)	3.59 (A193)	3.59 (A252)
		140	A193	2.84 (A193)	2.84 (A193)	2.84 (A193)	3.10 (A193)	3.10 (A193)	3.10 (A193)	3.51 (A193)	3.51 (A193)	3.51 (A193)
		150	A252	2.77 (A252)	2.77 (A252)	2.77 (A252)	3.02 (A252)	3.02 (A252)	3.02 (A252)	3.43 (A252)	3.43 (A252)	3.43 (A252)
		160	A252	2.71 (A252)	2.71 (A252)	2.71 (A252)	2.95 (A252)	2.95 (A252)	2.95 (A252)	3.42 (A252)	3.42 (A252)	3.42 (A252)
		170	A252	2.65 (A252)	2.65 (A252)	2.65 (A252)	2.89 (A252)	2.89 (A252)	2.89 (A252)	3.37 (A252)	3.37 (A252)	3.37 (A252)
		180	A393	2.59 (A393)	2.59 (A393)	2.59 (A393)	2.82 (A393)	2.82 (A393)	2.82 (A393)	3.30 (A393)	3.30 (A393)	3.30 (A393)
		190	A393	2.54 (A393)	2.54 (A393)	2.54 (A393)	2.77 (A393)	2.77 (A393)	2.77 (A393)	3.23 (A393)	3.23 (A393)	3.23 (A393)
200	A393	2.49 (A393)	2.49 (A393)	2.49 (A393)	2.71 (A393)	2.71 (A393)	2.71 (A393)	3.17 (A393)	3.17 (A393)	3.17 (A393)		
None	90 minutes	110	A142	3.08 (A193)	3.07 (A393)	2.96 (2xA252)	3.27 (A193)	3.26 (A393)	2.98 (2xA252)	3.77 (A393)	3.77 (2xA252)	3.02 (2xA252)
		120	A142	3.00 (A142)	2.99 (A252)	2.98 (A393)	3.18 (A142)	3.18 (A252)	3.17 (2xA252)	3.69 (A193)	3.67 (A393)	3.66 (2xA393)
		130	A193	2.91 (A193)	2.91 (A193)	2.91 (A393)	3.17 (A193)	3.17 (A252)	3.16 (A393)	3.59 (A193)	3.58 (A393)	3.58 (2xA252)
		140	A193	2.84 (A193)	2.84 (A193)	2.84 (A252)	3.10 (A193)	3.10 (A193)	3.09 (A393)	3.51 (A193)	3.51 (A252)	3.50 (2xA252)
		150	A252	2.77 (A252)	2.77 (A252)	2.77 (A252)	3.02 (A252)	3.02 (A252)	3.02 (A252)	3.43 (A252)	3.43 (A252)	3.43 (2xA193)
		160	A252	2.71 (A252)	2.71 (A252)	2.71 (A252)	2.95 (A252)	2.95 (A252)	2.95 (A252)	3.42 (A252)	3.42 (A252)	3.41 (A393)
		170	A252	2.65 (A252)	2.65 (A252)	2.65 (A252)	2.89 (A252)	2.89 (A252)	2.89 (A252)	3.37 (A252)	3.37 (A142)	3.37 (A252)
		180	A393	2.59 (A393)	2.59 (A393)	2.59 (A393)	2.82 (A393)	2.82 (A393)	2.82 (A393)	3.30 (A393)	3.30 (A393)	3.30 (A393)
		190	A393	2.54 (A393)	2.54 (A393)	2.54 (A393)	2.77 (A393)	2.77 (A393)	2.77 (A393)	3.23 (A393)	3.23 (A393)	3.23 (A393)
		200	A393	2.49 (A393)	2.49 (A393)	2.49 (A393)	2.71 (A393)	2.71 (A393)	2.71 (A393)	3.17 (A393)	3.17 (A393)	3.17 (A393)
None	120 minutes	125	A193	2.95 (A193)	2.95 (A252)	2.94 (2xA252)	3.17 (A193)	3.16 (A393)	3.15 (2xA252)	3.64 (A252)	3.63 (A393)	3.61 (2xA393)
		130	A193	2.91 (A193)	2.91 (A252)	2.91 (A393)	3.17 (A193)	3.16 (A393)	3.16 (2xA252)	3.59 (A252)	3.58 (A393)	3.57 (2xA393)
		140	A193	2.84 (A193)	2.84 (A193)	2.83 (A393)	3.10 (A193)	3.10 (A252)	3.09 (2xA252)	3.51 (A193)	3.50 (A393)	3.50 (2xA252)
		150	A252	2.77 (A252)	2.77 (A252)	2.77 (A252)	3.02 (A252)	3.02 (A252)	3.02 (A393)	3.43 (A252)	3.42 (A393)	3.42 (2xA252)
		160	A252	2.71 (A252)	2.71 (A252)	2.71 (A252)	2.95 (A252)	2.95 (A252)	2.95 (A252)	3.42 (A252)	3.42 (A252)	3.41 (2xA252)
		170	A252	2.65 (A252)	2.65 (A252)	2.65 (A252)	2.89 (A252)	2.89 (A252)	2.89 (A252)	3.37 (A252)	3.37 (A252)	3.37 (A393)
		180	A393	2.59 (A393)	2.59 (A393)	2.59 (A393)	2.82 (A393)	2.82 (A393)	2.82 (A393)	3.30 (A393)	3.30 (A393)	3.30 (A393)
		190	A393	2.54 (A393)	2.54 (A393)	2.54 (A393)	2.77 (A393)	2.77 (A393)	2.77 (A393)	3.23 (A393)	3.23 (A393)	3.23 (A393)
		200	A393	2.49 (A393)	2.49 (A393)	2.49 (A393)	2.71 (A393)	2.71 (A393)	2.71 (A393)	3.17 (A393)	3.17 (A393)	3.17 (A393)

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 un-propped construction. In order to maximise the FIRE LIMIT STATE spans, increased mesh sizing is required as specified in the above Mesh and Deck Fire Method tables.

ComFlor® 51+ normal weight concrete / using mesh / unpropped / Eurocode

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

Proprs	Fire period	Slab depth (mm)	Mesh 0.2% 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		
None	60 minutes	101	A142	3.10 (A142)	3.10 (A142)	3.08 (A393)	3.36 (A142)	3.36 (A142)	3.34 (A393)	3.88 (A142)	3.87 (A252)	3.61 (A393)
		110	A142	3.02 (A142)	3.02 (A142)	3.01 (A252)	3.27 (A142)	3.27 (A142)	3.27 (A252)	3.78 (A142)	3.78 (A142)	3.77 (2xA193)
		120	A142	2.97 (A142)	2.97 (A142)	2.97 (A193)	3.19 (A142)	3.19 (A142)	3.19 (A193)	3.68 (A142)	3.68 (A142)	3.67 (A393)
		130	A193	2.93 (A193)	2.93 (A193)	2.93 (A193)	3.11 (A193)	3.11 (A193)	3.11 (A193)	3.59 (A193)	3.59 (A193)	3.59 (A193)
		140	A193	2.86 (A193)	2.86 (A193)	2.86 (A193)	3.05 (A193)	3.05 (A193)	3.05 (A193)	3.51 (A193)	3.51 (A193)	3.51 (A193)
		150	A252	2.79 (A252)	2.79 (A252)	2.79 (A252)	3.04 (A252)	3.04 (A252)	3.04 (A252)	3.43 (A252)	3.43 (A252)	3.43 (A252)
		160	A252	2.72 (A252)	2.72 (A252)	2.72 (A252)	2.97 (A252)	2.97 (A252)	2.97 (A252)	3.36 (A252)	3.36 (A252)	3.36 (A252)
		170	A252	2.66 (A252)	2.66 (A252)	2.66 (A252)	2.91 (A252)	2.91 (A252)	2.91 (A252)	3.29 (A252)	3.29 (A252)	3.29 (A252)
		180	A393	2.61 (A393)	2.61 (A393)	2.61 (A393)	2.84 (A393)	2.84 (A393)	2.84 (A393)	3.23 (A393)	3.23 (A393)	3.23 (A393)
		190	A393	2.55 (A393)	2.55 (A393)	2.55 (A393)	2.79 (A393)	2.79 (A393)	2.79 (A393)	3.17 (A393)	3.17 (A393)	3.17 (A393)
200	A393	2.50 (A393)	2.50 (A393)	2.50 (A393)	2.73 (A393)	2.73 (A393)	2.73 (A393)	3.11 (A393)	3.11 (A393)	3.11 (A393)		
None	90 minutes	110	A142	3.02 (A142)	3.01 (A252)	3.00 (2xA252)	3.27 (A193)	3.26 (A393)	3.06 (2xA252)	3.77 (A252)	3.76 (2xA252)	3.06 (2xA252)
		120	A142	2.97 (A142)	2.97 (A193)	2.96 (A393)	3.19 (A142)	3.18 (A252)	3.18 (2xA193)	3.68 (A193)	3.67 (A393)	3.65 (2xA393)
		130	A193	2.93 (A193)	2.93 (A193)	2.93 (A393)	3.11 (A193)	3.11 (A193)	3.10 (A393)	3.59 (A193)	3.59 (A252)	3.58 (2xA252)
		140	A193	2.86 (A193)	2.86 (A193)	2.86 (A252)	3.05 (A193)	3.05 (A193)	3.04 (A393)	3.51 (A193)	3.51 (A252)	3.50 (A393)
		150	A252	2.79 (A252)	2.79 (A252)	2.79 (A252)	3.04 (A252)	3.04 (A252)	3.04 (A252)	3.43 (A252)	3.43 (A252)	3.43 (A393)
		160	A252	2.72 (A252)	2.72 (A252)	2.72 (A252)	2.97 (A252)	2.97 (A252)	2.97 (A252)	3.36 (A252)	3.36 (A252)	3.36 (A393)
		170	A252	2.66 (A252)	2.66 (A252)	2.66 (A252)	2.91 (A252)	2.91 (A252)	2.91 (A252)	3.29 (A252)	3.29 (A252)	3.29 (A252)
		180	A393	2.61 (A393)	2.61 (A393)	2.61 (A393)	2.84 (A393)	2.84 (A393)	2.84 (A393)	3.23 (A252)	3.23 (A393)	3.23 (A393)
		190	A393	2.55 (A393)	2.55 (A393)	2.55 (A393)	2.79 (A393)	2.79 (A393)	2.79 (A393)	3.17 (A393)	3.17 (A393)	3.17 (A393)
		200	A393	2.50 (A393)	2.50 (A393)	2.50 (A393)	2.74 (A393)	2.73 (A393)	2.73 (A393)	3.11 (A393)	3.11 (A393)	3.11 (A393)
None	120 minutes	125	A193	2.97 (A193)	2.97 (A252)	2.96 (2xA252)	3.15 (A193)	3.14 (A393)	3.13 (2xA252)	3.63 (A252)	3.64 (A393)	3.61 (2xA393)
		130	A193	2.93 (A193)	2.93 (A252)	2.93 (A393)	3.11 (A193)	3.10 (A252)	3.09 (2xA252)	3.59 (A193)	3.58 (A393)	3.57 (2xA393)
		140	A193	2.86 (A193)	2.86 (A193)	2.85 (A393)	3.05 (A193)	3.05 (A252)	3.04 (A393)	3.51 (A193)	3.50 (A393)	3.50 (2xA252)
		150	A252	2.79 (A252)	2.79 (A252)	2.79 (A252)	3.04 (A252)	3.04 (A252)	3.04 (A393)	3.43 (A252)	3.43 (A252)	3.43 (2xA193)
		160	A252	2.72 (A252)	2.72 (A252)	2.72 (A252)	2.97 (A252)	2.97 (A252)	2.97 (A252)	3.36 (A252)	3.36 (A252)	3.36 (A393)
		170	A252	2.66 (A252)	2.66 (A252)	2.66 (A252)	2.91 (A252)	2.91 (A252)	2.91 (A252)	3.29 (A252)	3.29 (A252)	3.29 (A393)
		180	A393	2.61 (A393)	2.61 (A393)	2.61 (A393)	2.84 (A393)	2.84 (A393)	2.84 (A393)	3.23 (A252)	3.23 (A393)	3.23 (A393)
		190	A393	2.55 (A393)	2.55 (A393)	2.55 (A393)	2.79 (A393)	2.79 (A393)	2.79 (A393)	3.17 (A393)	3.17 (A393)	3.17 (A393)
200	A393	2.50 (A393)	2.50 (A393)	2.50 (A393)	2.74 (A393)	2.73 (A393)	2.73 (A393)	3.11 (A393)	3.11 (A393)	3.11 (A393)		

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 Mesh and Deck Fire Method tables.

ComFlor® 51+ normal weight concrete / using mesh / unpropped / Eurocode

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

Props	Fire period	Slab depth (mm)	Mesh 0.2% min. reqd.*	Total applied load (kN/m ²)								
				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	101	A142	2.78 (8)	2.78 (8)	2.78 (8)	3.00 (8)	3.00 (8)	3.00 (8)	3.36 (8)	3.36 (8)	3.36 (8)
		110	A142	2.71 (8)	2.71 (8)	2.71 (8)	2.93 (8)	2.93 (8)	2.93 (8)	3.28 (8)	3.28 (8)	3.28 (8)
		120	A142	2.65 (8)	2.65 (8)	2.65 (8)	2.85 (8)	2.85 (8)	2.85 (8)	3.21 (8)	3.21 (8)	3.21 (8)
		130	A193	2.61 (8)	2.61 (8)	2.61 (8)	2.78 (8)	2.78 (8)	2.78 (8)	3.13 (8)	3.13 (8)	3.13 (8)
		140	A193	2.58 (8)	2.58 (8)	2.58 (8)	2.72 (8)	2.72 (8)	2.72 (8)	3.07 (8)	3.07 (8)	3.07 (8)
		150	A252	2.52 (8)	2.52 (8)	2.52 (8)	2.66 (8)	2.66 (8)	2.66 (8)	3.00 (8)	3.00 (8)	3.00 (8)
		160	A252	2.46 (8)	2.46 (8)	2.46 (8)	2.60 (8)	2.60 (8)	2.60 (8)	2.94 (8)	2.94 (8)	2.94 (8)
		170	A252	2.41 (8)	2.41 (8)	2.41 (8)	2.55 (8)	2.55 (8)	2.55 (8)	2.89 (8)	2.89 (8)	2.89 (8)
		180	A393	2.36 (8)	2.36 (8)	2.36 (8)	2.50 (8)	2.50 (8)	2.50 (8)	2.83 (8)	2.83 (8)	2.83 (8)
		190	A393	2.31 (8)	2.31 (8)	2.31 (8)	2.45 (8)	2.45 (8)	2.45 (8)	2.78 (8)	2.78 (8)	2.78 (8)
200	A393	2.27 (8)	2.27 (8)	2.27 (8)	2.41 (8)	2.41 (8)	2.41 (8)	2.73 (8)	2.73 (8)	2.73 (8)		
None	90 minutes	110	A142	2.71 (8)	2.71 (8)	2.71 (10)	2.93 (8)	2.93 (8)	2.92 (10)	3.28 (8)	3.28 (10)	3.27 (12)
		120	A142	2.65 (8)	2.65 (8)	2.65 (8)	2.85 (8)	2.85 (8)	2.85 (10)	3.21 (8)	3.21 (8)	3.20 (10)
		130	A193	2.61 (8)	2.61 (8)	2.61 (8)	2.78 (8)	2.78 (8)	2.78 (8)	3.13 (8)	3.13 (8)	3.13 (10)
		140	A193	2.58 (8)	2.58 (8)	2.58 (8)	2.72 (8)	2.72 (8)	2.72 (8)	3.07 (8)	3.07 (8)	3.06 (10)
		150	A252	2.52 (8)	2.52 (8)	2.52 (8)	2.66 (8)	2.66 (8)	2.66 (8)	3.00 (8)	3.00 (8)	3.00 (8)
		160	A252	2.46 (8)	2.46 (8)	2.46 (8)	2.60 (8)	2.60 (8)	2.60 (8)	2.94 (8)	2.94 (8)	2.94 (8)
		170	A252	2.41 (8)	2.41 (8)	2.41 (8)	2.55 (8)	2.55 (8)	2.55 (8)	2.89 (8)	2.89 (8)	2.89 (8)
		180	A393	2.36 (8)	2.36 (8)	2.36 (8)	2.50 (8)	2.50 (8)	2.50 (8)	2.83 (8)	2.83 (8)	2.83 (8)
		190	A393	2.31 (8)	2.31 (8)	2.31 (8)	2.45 (8)	2.45 (8)	2.45 (8)	2.78 (8)	2.78 (8)	2.78 (8)
		200	A393	2.27 (8)	2.27 (8)	2.27 (8)	2.41 (8)	2.41 (8)	2.41 (8)	2.73 (8)	2.73 (8)	2.73 (8)
None	120 minutes	125	A193	2.61 (8)	2.61 (10)	2.60 (12)	2.81 (10)	2.81 (12)	2.80 (16)	3.16 (12)	3.16 (12)	3.14 (16)
		130	A193	2.61 (8)	2.60 (10)	2.60 (12)	2.78 (8)	2.78 (10)	2.77 (12)	3.13 (10)	3.12 (12)	3.11 (16)
		140	A193	2.58 (8)	2.58 (8)	2.57 (12)	2.72 (8)	2.72 (8)	2.71 (12)	3.07 (8)	3.06 (12)	3.05 (16)
		150	A252	2.52 (8)	2.52 (8)	2.52 (8)	2.66 (8)	2.66 (8)	2.66 (10)	3.00 (8)	3.00 (8)	3.00 (12)
		160	A252	2.46 (8)	2.46 (8)	2.46 (8)	2.60 (8)	2.60 (8)	2.60 (8)	2.94 (8)	2.94 (8)	2.94 (10)
		170	A252	2.41 (8)	2.41 (8)	2.41 (8)	2.55 (8)	2.55 (8)	2.55 (8)	2.89 (8)	2.89 (8)	2.88 (10)
		180	A393	2.36 (8)	2.36 (8)	2.36 (8)	2.50 (8)	2.50 (8)	2.50 (8)	2.83 (8)	2.83 (8)	2.83 (8)
		190	A393	2.31 (8)	2.31 (8)	2.31 (8)	2.45 (8)	2.45 (8)	2.45 (8)	2.78 (8)	2.78 (8)	2.78 (8)
		200	A393	2.27 (8)	2.27 (8)	2.27 (8)	2.41 (8)	2.41 (8)	2.41 (8)	2.73 (8)	2.73 (8)	2.73 (8)

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

Props	Fire period	Slab depth (mm)	Mesh 0.2% min. reqd.*	Total applied load (kN/m ²)								
				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	101	A142	3.08 (8)	3.08 (8)	3.08 (8)	3.35 (8)	3.35 (8)	3.34 (10)	3.88 (8)	3.87 (10)	3.87 (10)
		110	A142	3.08 (8)	3.08 (8)	3.08 (8)	3.26 (8)	3.26 (8)	3.26 (8)	3.78 (8)	3.78 (8)	3.77 (10)
		120	A142	2.99 (8)	2.99 (8)	2.99 (8)	3.18 (8)	3.18 (8)	3.17 (8)	3.68 (8)	3.68 (8)	3.68 (8)
		130	A193	2.91 (8)	2.91 (8)	2.91 (8)	3.16 (8)	3.16 (8)	3.16 (8)	3.59 (8)	3.59 (8)	3.59 (8)
		140	A193	2.83 (8)	2.83 (8)	2.83 (8)	3.09 (8)	3.09 (8)	3.09 (8)	3.51 (8)	3.50 (8)	3.50 (8)
		150	A252	2.76 (8)	2.76 (8)	2.76 (8)	3.02 (8)	3.02 (8)	3.02 (8)	3.42 (8)	3.42 (8)	3.42 (8)
		160	A252	2.70 (8)	2.70 (8)	2.70 (8)	2.95 (8)	2.95 (8)	2.95 (8)	3.41 (8)	3.41 (8)	3.41 (8)
		170	A252	2.64 (8)	2.64 (8)	2.64 (8)	2.88 (8)	2.88 (8)	2.88 (8)	3.37 (8)	3.37 (8)	3.37 (8)
		180	A393	2.58 (8)	2.58 (8)	2.58 (8)	2.82 (8)	2.82 (8)	2.82 (8)	3.29 (8)	3.29 (8)	3.29 (8)
		190	A393	2.53 (8)	2.53 (8)	2.53 (8)	2.76 (8)	2.76 (8)	2.76 (8)	3.23 (8)	3.23 (8)	3.23 (8)
200	A393	2.48 (8)	2.48 (8)	2.48 (8)	2.71 (8)	2.71 (8)	2.71 (8)	3.17 (8)	3.17 (8)	3.17 (8)		
None	90 minutes	110	A142	3.08 (8)	3.07 (10)	3.07 (10)	3.26 (8)	3.26 (10)	3.25 (12)	3.77 (10)	3.77 (12)	3.75 (16)
		120	A142	2.99 (8)	2.99 (8)	2.99 (10)	3.18 (8)	3.17 (10)	3.17 (10)	3.68 (10)	3.68 (10)	3.67 (12)
		130	A193	2.91 (8)	2.91 (8)	2.90 (10)	3.16 (8)	3.16 (8)	3.16 (10)	3.59 (8)	3.58 (10)	3.58 (12)
		140	A193	2.83 (8)	2.83 (8)	2.83 (8)	3.09 (8)	3.09 (8)	3.09 (10)	3.50 (8)	3.50 (8)	3.50 (10)
		150	A252	2.76 (8)	2.76 (8)	2.76 (8)	3.02 (8)	3.02 (8)	3.02 (8)	3.42 (8)	3.42 (8)	3.42 (10)
		160	A252	2.70 (8)	2.70 (8)	2.70 (8)	2.95 (8)	2.95 (8)	2.95 (8)	3.41 (8)	3.41 (8)	3.41 (10)
		170	A252	2.64 (8)	2.64 (8)	2.64 (8)	2.88 (8)	2.88 (8)	2.88 (8)	3.37 (8)	3.37 (8)	3.37 (8)
		180	A393	2.58 (8)	2.58 (8)	2.58 (8)	2.82 (8)	2.82 (8)	2.82 (8)	3.29 (8)	3.29 (8)	3.29 (8)
		190	A393	2.53 (8)	2.53 (8)	2.53 (8)	2.76 (8)	2.76 (8)	2.76 (8)	3.23 (8)	3.23 (8)	3.23 (8)
		200	A393	2.48 (8)	2.48 (8)	2.48 (8)	2.71 (8)	2.71 (8)	2.71 (8)	3.17 (8)	3.17 (8)	3.17 (8)
None	120 minutes	125	A193	2.94 (10)	2.94 (12)	2.93 (16)	3.15 (12)	3.14 (16)	3.14 (16)	3.62 (12)	3.61 (16)	3.59 (20)
		130	A193	2.90 (10)	2.90 (12)	2.89 (16)	3.15 (12)	3.15 (12)	3.14 (16)	3.58 (12)	3.57 (16)	3.57 (16)
		140	A193	2.83 (8)	2.83 (10)	2.83 (12)	3.09 (10)	3.09 (12)	3.08 (16)	3.50 (12)	3.48 (16)	3.48 (16)
		150	A252	2.76 (8)	2.76 (8)	2.76 (10)	3.02 (8)	3.01 (10)	3.01 (12)	3.42 (10)	3.41 (12)	3.41 (16)
		160	A252	2.70 (8)	2.70 (8)	2.70 (10)	2.95 (8)	2.94 (8)	2.94 (10)	3.41 (8)	3.41 (12)	3.39 (16)
		170	A252	2.64 (8)	2.64 (8)	2.64 (8)	2.88 (8)	2.88 (8)	2.88 (10)	3.37 (8)	3.36 (10)	3.35 (16)
		180	A393	2.58 (8)	2.58 (8)	2.58 (8)	2.82 (8)	2.82 (8)	2.82 (8)	3.29 (8)	3.29 (8)	3.29 (10)
		190	A393	2.53 (8)	2.53 (8)	2.53 (8)	2.76 (8)	2.76 (8)	2.76 (8)	3.23 (8)	3.23 (8)	3.23 (10)
		200	A393	2.48 (8)	2.48 (8)	2.48 (8)	2.71 (8)	2.71 (8)	2.71 (8)	3.17 (8)	3.17 (8)	3.17 (8)

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 un-propped construction. In order to maximise the FIRE LIMIT STATE spans, increased mesh sizing is required as specified in the above Mesh and Deck Fire Method tables.

ComFlor® 51+ normal weight concrete / using mesh / unpropped / Eurocode

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

Props	Fire period	Slab depth (mm)	Mesh 0.2% min. reqd.*	Total applied load (kN/m ²)								
				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	101	A142	3.09 (8)	3.09 (8)	3.09 (8)	3.35 (8)	3.35 (8)	3.34 (10)	3.87 (8)	3.87 (8)	3.86 (10)
		110	A142	3.01 (8)	3.01 (8)	3.01 (8)	3.26 (8)	3.26 (8)	3.26 (8)	3.77 (8)	3.77 (8)	3.77 (10)
		120	A142	2.97 (8)	2.97 (8)	2.97 (8)	3.18 (8)	3.18 (8)	3.18 (8)	3.68 (8)	3.68 (8)	3.67 (10)
		130	A193	2.93 (8)	2.93 (8)	2.93 (8)	3.10 (8)	3.10 (8)	3.10 (8)	3.59 (8)	3.59 (8)	3.58 (8)
		140	A193	2.85 (8)	2.85 (8)	2.85 (8)	3.04 (8)	3.04 (8)	3.04 (8)	3.50 (8)	3.50 (8)	3.50 (8)
		150	A252	2.78 (8)	2.78 (8)	2.78 (8)	3.04 (8)	3.04 (8)	3.04 (8)	3.43 (8)	3.43 (8)	3.43 (8)
		160	A252	2.72 (8)	2.72 (8)	2.72 (8)	2.97 (8)	2.97 (8)	2.97 (8)	3.35 (8)	3.35 (8)	3.35 (8)
		170	A252	2.66 (8)	2.66 (8)	2.66 (8)	2.90 (8)	2.90 (8)	2.90 (8)	3.29 (8)	3.29 (8)	3.29 (8)
		180	A393	2.60 (8)	2.60 (8)	2.60 (8)	2.84 (8)	2.84 (8)	2.84 (8)	3.22 (8)	3.22 (8)	3.22 (8)
		190	A393	2.55 (8)	2.55 (8)	2.55 (8)	2.78 (8)	2.78 (8)	2.78 (8)	3.16 (8)	3.16 (8)	3.16 (8)
200	A393	2.50 (8)	2.50 (8)	2.50 (8)	2.73 (8)	2.73 (8)	2.73 (8)	3.10 (8)	3.10 (8)	3.10 (8)		
None	90 minutes	110	A142	3.01 (8)	3.01 (10)	3.01 (10)	3.26 (8)	3.26 (10)	3.25 (12)	3.77 (10)	3.76 (12)	3.76 (12)
		120	A142	2.97 (8)	2.97 (8)	2.96 (10)	3.18 (8)	3.18 (10)	3.18 (10)	3.68 (10)	3.67 (10)	3.67 (12)
		130	A193	2.93 (8)	2.93 (8)	2.92 (10)	3.10 (8)	3.10 (8)	3.10 (10)	3.59 (8)	3.58 (10)	3.58 (12)
		140	A193	2.85 (8)	2.85 (8)	2.85 (8)	3.04 (8)	3.04 (8)	3.03 (10)	3.50 (8)	3.50 (10)	3.50 (10)
		150	A252	2.78 (8)	2.78 (8)	2.78 (8)	3.04 (8)	3.04 (8)	3.04 (8)	3.43 (8)	3.43 (8)	3.42 (10)
		160	A252	2.72 (8)	2.72 (8)	2.72 (8)	2.97 (8)	2.97 (8)	2.97 (8)	3.35 (8)	3.35 (8)	3.34 (10)
		170	A252	2.66 (8)	2.66 (8)	2.66 (8)	2.90 (8)	2.90 (8)	2.90 (8)	3.29 (8)	3.29 (8)	3.29 (8)
		180	A393	2.60 (8)	2.60 (8)	2.60 (8)	2.84 (8)	2.84 (8)	2.84 (8)	3.22 (8)	3.22 (8)	3.22 (8)
		190	A393	2.55 (8)	2.55 (8)	2.55 (8)	2.78 (8)	2.78 (8)	2.78 (8)	3.16 (8)	3.16 (8)	3.16 (8)
		200	A393	2.50 (8)	2.50 (8)	2.50 (8)	2.73 (8)	2.73 (8)	2.73 (8)	3.10 (8)	3.10 (8)	3.11 (8)
None	120 minutes	125	A193	2.96 (10)	2.95 (12)	2.94 (16)	3.13 (12)	3.13 (12)	3.12 (16)	3.62 (12)	3.60 (16)	3.60 (16)
		130	A193	2.92 (10)	2.92 (12)	2.91 (16)	3.10 (10)	3.09 (12)	3.08 (16)	3.58 (12)	3.56 (16)	3.56 (16)
		140	A193	2.85 (8)	2.85 (10)	2.84 (12)	3.04 (8)	3.03 (12)	3.02 (16)	3.49 (12)	3.48 (12)	3.48 (16)
		150	A252	2.78 (8)	2.78 (8)	2.78 (10)	3.04 (8)	3.03 (10)	3.03 (12)	3.42 (10)	3.42 (12)	3.41 (16)
		160	A252	2.72 (8)	2.72 (8)	2.72 (10)	2.97 (8)	2.97 (8)	2.96 (10)	3.35 (8)	3.35 (10)	3.34 (16)
		170	A252	2.66 (8)	2.66 (8)	2.66 (8)	2.90 (8)	2.90 (8)	2.90 (10)	3.29 (8)	3.29 (10)	3.28 (12)
		180	A393	2.60 (8)	2.60 (8)	2.60 (8)	2.84 (8)	2.84 (8)	2.84 (8)	3.22 (8)	3.22 (8)	3.22 (10)
		190	A393	2.55 (8)	2.55 (8)	2.55 (8)	2.78 (8)	2.78 (8)	2.78 (8)	3.16 (8)	3.16 (8)	3.15 (10)
		200	A393	2.50 (8)	2.50 (8)	2.50 (8)	2.73 (8)	2.73 (8)	2.73 (8)	3.10 (8)	3.10 (8)	3.11 (8)

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.

ComFlor® 51+ 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)								
				0.90mm			1.00mm			1.20mm		
				5.00	7.50	10.00	5.00	7.50	10.00	5.00	7.50	10.00
1 line	60 minutes	101	A252	3.94 (A393)	3.50 (A393)	2.99 (A393)	3.98 (A393)	3.56 (A393)	3.05 (A393)	4.07 (A393)	3.70 (A393)	3.16 (A393)
		110	A252	4.18 (2xA193)	3.88 (2xA252)	3.37 (2xA252)	4.22 (A393)	3.92 (2xA252)	3.42 (2xA252)	4.32 (A393)	4.00 (2xA252)	3.53 (2xA252)
		120	A393	4.43 (2xA252)	4.12 (2xA393)	3.88 (2xA393)	4.48 (2xA252)	4.16 (2xA393)	3.93 (2xA393)	4.58 (2xA193)	4.00 (2xA252)	4.01 (2xA393)
		130	A393	4.68 (2xA252)	4.36 (2xA393)	4.01 (2xA393)	4.73 (2xA252)	4.41 (2xA393)	4.06 (2xA393)	4.84 (2xA252)	4.51 (2xA393)	4.16 (2xA393)
		140	A393	4.93 (2xA252)	4.60 (2xA393)	4.09 (2xA393)	4.98 (2xA252)	4.65 (2xA393)	4.16 (2xA393)	5.09 (2xA252)	4.75 (2xA393)	4.26 (2xA393)
		150	2xA252	5.16 (2xA252)	4.81 (2xA393)	4.19 (2xA393)	5.22 (2xA252)	4.87 (2xA393)	4.25 (2xA393)	5.32 (2xA393)	4.99 (2xA393)	4.36 (2xA393)
		160	2xA252	5.35 (2xA252)	5.03 (2xA393)	4.55 (2xA393)	5.45 (2xA252)	5.11 (2xA393)	4.57 (2xA393)	5.56 (2xA393)	5.23 (2xA393)	4.60 (2xA393)
		170	2xA252	5.23 (2xA252)	5.17 (2xA393)	4.90 (2xA393)	5.61 (2xA393)	5.26 (2xA393)	4.96 (2xA393)	5.80 (2xA393)	5.45 (2xA393)	4.99 (2xA393)
		180	2xA393	5.11 (2xA393)	5.11 (2xA393)	4.99 (2xA393)	5.58 (2xA393)	5.40 (2xA393)	5.05 (2xA393)	5.95 (2xA393)	5.60 (2xA393)	5.17 (2xA393)
		190	2xA393	5.01 (2xA393)	5.01 (2xA393)	5.01 (2xA393)	5.47 (2xA393)	5.47 (2xA393)	5.14 (2xA393)	6.09 (2xA393)	5.74 (2xA393)	5.26 (2xA393)
200	2xA393	4.91 (2xA393)	4.91 (2xA393)	4.91 (2xA393)	5.36 (2xA393)	5.36 (2xA393)	5.22 (2xA393)	6.21 (2xA393)	5.87 (2xA393)	5.35 (2xA393)		
1 line	90 minutes	110	A252	3.67 (2xA252)	3.19 (2xA252)	2.75 (2xA252)	3.73 (2xA252)	3.24 (2xA252)	2.79 (2xA252)	3.83 (2xA252)	3.33 (2xA252)	2.87 (2xA252)
		120	A393	4.42 (2xA393)	3.94 (2xA393)	3.39 (2xA393)	4.47 (2xA393)	3.97 (2xA393)	3.43 (2xA393)	4.56 (2xA393)	4.05 (2xA393)	3.49 (2xA393)
		130	A393	4.67 (2xA393)	4.16 (2xA393)	3.60 (2xA393)	4.72 (2xA393)	4.20 (2xA393)	3.63 (2xA393)	4.82 (2xA393)	4.27 (2xA393)	3.70 (2xA393)
		140	A393	4.79 (2xA393)	4.22 (2xA393)	3.67 (2xA393)	4.83 (2xA393)	4.27 (2xA393)	3.70 (2xA393)	4.93 (2xA393)	4.35 (2xA393)	3.77 (2xA393)
		150	2xA252	4.84 (2xA393)	4.28 (2xA393)	3.73 (2xA393)	4.88 (2xA393)	4.33 (2xA393)	3.77 (2xA393)	4.98 (2xA393)	4.41 (2xA393)	3.84 (2xA393)
		160	2xA252	4.86 (2xA393)	4.32 (2xA393)	3.78 (2xA393)	4.92 (2xA393)	4.37 (2xA393)	3.82 (2xA393)	5.02 (2xA393)	4.46 (2xA393)	3.89 (2xA393)
		170	2xA252	4.91 (2xA393)	4.38 (2xA393)	3.83 (2xA393)	4.96 (2xA393)	4.42 (2xA393)	3.88 (2xA393)	5.07 (2xA393)	4.52 (2xA393)	3.96 (2xA393)
		180	2xA393	5.11 (2xA393)	4.62 (2xA393)	4.06 (2xA393)	5.17 (2xA393)	4.63 (2xA393)	4.07 (2xA393)	5.21 (2xA393)	4.66 (2xA393)	4.09 (2xA393)
		190	2xA393	5.01 (2xA393)	5.01 (2xA393)	4.43 (2xA393)	5.47 (2xA393)	5.03 (2xA393)	4.43 (2xA393)	5.61 (2xA393)	5.04 (2xA393)	4.44 (2xA393)
		200	2xA393	4.91 (2xA393)	4.91 (2xA393)	4.76 (2xA393)	5.36 (2xA393)	5.36 (2xA393)	4.80 (2xA393)	6.08 (2xA393)	5.48 (2xA393)	4.85 (2xA393)
1 line	120 minutes	125	A393	4.25 (2xA393)	3.72 (2xA393)	3.22 (2xA393)	4.29 (2xA393)	3.76 (2xA393)	3.25 (2xA393)	4.37 (2xA393)	3.82 (2xA393)	3.30 (2xA393)
		130	A393	4.40 (2xA393)	3.86 (2xA393)	3.34 (2xA393)	4.44 (2xA393)	3.90 (2xA393)	3.37 (2xA393)	4.51 (2xA393)	3.96 (2xA393)	3.43 (2xA393)
		140	A393	4.60 (2xA393)	4.06 (2xA393)	3.52 (2xA393)	4.64 (2xA393)	4.09 (2xA393)	3.55 (2xA393)	4.72 (2xA393)	4.16 (2xA393)	3.61 (2xA393)
		150	2xA252	4.64 (2xA393)	4.11 (2xA393)	3.58 (2xA393)	4.68 (2xA393)	4.15 (2xA393)	3.61 (2xA393)	4.76 (2xA393)	4.21 (2xA393)	3.67 (2xA393)
		160	2xA252	4.68 (2xA393)	4.16 (2xA393)	3.64 (2xA393)	4.73 (2xA393)	4.20 (2xA393)	3.67 (2xA393)	4.81 (2xA393)	4.27 (2xA393)	3.73 (2xA393)
		170	2xA252	4.70 (2xA393)	4.19 (2xA393)	3.67 (2xA393)	4.74 (2xA393)	4.23 (2xA393)	3.70 (2xA393)	4.83 (2xA393)	4.30 (2xA393)	3.77 (2xA393)
		180	2xA393	4.72 (2xA393)	4.22 (2xA393)	3.71 (2xA393)	4.77 (2xA393)	4.26 (2xA393)	3.75 (2xA393)	4.86 (2xA393)	4.34 (2xA393)	3.82 (2xA393)
		190	2xA393	4.84 (2xA393)	4.34 (2xA393)	3.83 (2xA393)	4.86 (2xA393)	4.36 (2xA393)	3.84 (2xA393)	4.90 (2xA393)	4.39 (2xA393)	3.87 (2xA393)
		200	2xA393	4.91 (2xA393)	4.68 (2xA393)	4.14 (2xA393)	5.21 (2xA393)	4.69 (2xA393)	4.14 (2xA393)	5.22 (2xA393)	4.70 (2xA393)	4.15 (2xA393)

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 Mesh and Deck Fire Method tables.

ComFlor® 51+ 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	101	A252	4.03 (25)	3.75 (25)	3.56 (32)	4.05 (32)	3.79 (32)	3.58 (32)	4.10 (32)	3.84 (32)	3.63 (32)
		110	A252	4.34 (32)	4.06 (32)	3.84 (32)	4.35 (32)	4.07 (32)	3.86 (32)	4.40 (32)	4.12 (32)	3.90 (32)
		120	A393	4.66 (32)	4.37 (32)	4.15 (32)	4.68 (32)	4.39 (32)	4.17 (32)	4.72 (32)	4.44 (32)	4.21 (32)
		130	A393	4.98 (32)	4.68 (32)	4.45 (32)	5.00 (32)	4.70 (32)	4.47 (32)	5.04 (32)	4.75 (32)	4.51 (32)
		140	A393	5.29 (32)	4.99 (32)	4.74 (32)	5.31 (32)	5.01 (32)	4.76 (32)	5.36 (32)	5.05 (32)	4.80 (32)
		150	2xA252	5.41 (20)	5.28 (32)	5.03 (32)	5.61 (32)	5.30 (32)	5.05 (32)	5.66 (32)	5.34 (32)	5.09 (32)
		160	2xA252	5.34 (8)	5.29 (20)	5.20 (25)	5.74 (25)	5.59 (32)	5.33 (32)	5.96 (32)	5.63 (32)	5.37 (32)
		170	2xA252	5.22 (8)	5.22 (10)	5.20 (16)	5.71 (8)	5.65 (20)	5.56 (32)	6.25 (32)	5.92 (32)	5.54 (25)
		180	2xA393	5.10 (8)	5.10 (8)	5.09 (12)	5.57 (8)	5.57 (10)	5.54 (16)	6.37 (25)	6.20 (32)	5.80 (25)
		190	2xA393	5.00 (8)	5.00 (8)	4.99 (12)	5.46 (8)	5.46 (8)	5.45 (12)	6.34 (12)	6.24 (20)	6.07 (25)
200	2xA393	4.90 (8)	4.90 (8)	4.90 (8)	5.35 (8)	5.35 (8)	5.34 (12)	6.20 (8)	6.16 (16)	6.13 (20)		
1 line	90 minutes	110	A252	4.34 (32)	4.06 (32)	3.84 (32)	4.35 (32)	4.07 (32)	3.86 (32)	4.40 (32)	4.12 (32)	3.90 (32)
		120	A393	4.66 (32)	4.37 (32)	4.15 (32)	4.68 (32)	4.39 (32)	4.17 (32)	4.72 (32)	4.44 (32)	4.21 (32)
		130	A393	4.98 (32)	4.68 (25)	4.45 (32)	5.00 (32)	4.70 (32)	4.47 (32)	5.04 (32)	4.75 (32)	4.51 (32)
		140	A393	5.29 (32)	4.99 (32)	4.74 (32)	5.31 (32)	5.01 (32)	4.76 (32)	5.36 (32)	5.05 (32)	4.80 (32)
		150	2xA252	5.41 (20)	5.28 (32)	5.03 (32)	5.61 (32)	5.30 (32)	5.05 (32)	5.66 (32)	5.34 (32)	5.09 (32)
		160	2xA252	5.33 (12)	5.29 (20)	5.20 (25)	5.74 (25)	5.59 (32)	5.33 (32)	5.96 (32)	5.63 (32)	5.37 (32)
		170	2xA252	5.21 (12)	5.20 (16)	5.18 (20)	5.68 (16)	5.65 (20)	5.56 (32)	6.25 (32)	5.92 (32)	5.65 (32)
		180	2xA393	5.09 (10)	5.09 (12)	5.07 (16)	5.56 (12)	5.54 (16)	5.54 (16)	6.36 (25)	6.20 (32)	5.92 (32)
		190	2xA393	5.00 (8)	5.00 (10)	4.97 (16)	5.45 (10)	5.43 (16)	5.43 (16)	6.30 (16)	6.24 (20)	6.12 (32)
		200	2xA393	4.90 (8)	4.90 (10)	4.89 (12)	5.35 (10)	5.33 (16)	5.33 (16)	6.16 (16)	6.16 (16)	6.13 (20)
1 line	120 minutes	125	A393	4.82 (32)	4.48 (25)	4.30 (32)	4.84 (32)	4.55 (32)	4.32 (32)	4.89 (32)	4.59 (32)	4.36 (32)
		130	A393	4.98 (32)	4.68 (32)	4.45 (32)	5.00 (32)	4.70 (32)	4.47 (32)	5.04 (32)	4.75 (32)	4.51 (32)
		140	A393	5.29 (32)	4.99 (32)	4.74 (32)	5.31 (32)	5.01 (32)	4.76 (32)	5.36 (32)	5.05 (32)	4.80 (32)
		150	2xA252	5.41 (20)	5.28 (32)	5.03 (32)	5.61 (32)	5.30 (32)	5.05 (32)	5.66 (32)	5.34 (32)	5.01 (32)
		160	2xA252	5.29 (20)	5.26 (25)	5.20 (25)	5.74 (25)	5.59 (32)	5.33 (32)	5.96 (32)	5.63 (32)	5.37 (32)
		170	2xA252	5.18 (20)	5.18 (20)	5.15 (25)	5.65 (20)	5.62 (25)	5.56 (32)	6.25 (32)	5.92 (32)	5.65 (32)
		180	2xA393	5.08 (16)	5.06 (20)	5.03 (25)	5.52 (20)	5.52 (20)	5.49 (25)	6.37 (25)	6.20 (32)	5.92 (32)
		190	2xA393	4.98 (16)	4.96 (20)	4.96 (20)	5.41 (20)	5.41 (20)	5.39 (25)	6.22 (25)	6.21 (25)	6.12 (32)
		200	2xA393	4.89 (12)	4.87 (16)	4.86 (20)	5.33 (16)	5.31 (20)	5.28 (25)	6.13 (20)	6.08 (25)	6.08 (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 0.4% 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 Bar Fire Method tables.

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

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