

# 2W Composite Floor

Allowable Superimposed Load (kPa) & Diaphragm Shear Capacity (kN/m) Normal Weight Concrete (2400 kg/m<sup>3</sup>)

2W	THK	No. Spans	Span (m)												
			1.80	2.00	2.15	2.30	2.45	2.60	2.75	2.90	3.05	3.20	3.35	3.50	3.65
(Total Slab Thickness) 100 mm	0.75 mm	1	11.6	10.1	8.8	6.2	5.4	4.6	4.0	3.5	3.0	2.6	2.3	2.0	1.7
		2	11.6	10.1	8.8	7.7	6.8	6.1	5.5	3.5	3.0	2.6	2.3	2.0	1.7
		3	11.6	10.1	8.8	7.7	6.8	6.1	4.0	3.5	3.0	2.6	2.3	2.0	1.7
		q3	24.9	24.6	24.3	24.1	23.9	23.8	23.6	23.5	23.3	23.2	23.1	23.0	22.9
		q4	27.1	26.5	26.0	25.6	25.3	25.0	24.7	24.4	24.2	24.0	23.8	23.6	23.5
	0.90 mm	1	12.8	11.1	9.7	8.5	7.6	5.3	4.6	4.0	3.5	3.1	2.7	2.4	2.1
		2	12.8	11.1	9.7	8.5	7.6	6.8	6.1	5.6	3.5	3.1	2.7	2.4	2.1
		3	12.8	11.1	9.7	8.5	7.6	6.8	6.1	5.6	5.0	3.1	2.7	2.4	2.1
		q3	25.2	24.8	24.5	24.2	23.9	23.7	23.5	23.4	23.2	23.1	23.0	22.8	22.7
		q4	28.1	27.4	26.8	26.3	25.9	25.5	25.2	24.9	24.6	24.3	24.1	23.9	23.7
(Slab Wt): 1.78 kPa	1.20 mm	1	15.5	13.4	11.8	10.4	9.3	8.4	7.6	6.8	6.3	5.7	3.8	3.4	3.0
		2	15.5	13.4	11.8	10.4	9.3	8.4	7.6	6.8	6.3	5.7	5.3	3.4	3.0
		3	15.5	13.4	11.8	10.4	9.3	8.4	7.6	6.8	6.3	5.7	5.3	4.9	4.6
		q3	26.0	25.5	25.0	24.7	24.4	24.1	23.8	23.6	23.4	23.2	23.0	22.9	22.7
		q4	30.4	29.5	28.7	28.0	27.4	26.9	26.5	26.0	25.7	25.3	25.0	24.8	24.5
	1.50 mm	1	18.8	16.4	14.4	12.8	11.5	10.3	9.4	8.6	7.9	7.2	6.7	4.6	4.2
		2	18.8	16.4	14.4	12.8	11.5	10.3	9.4	8.6	7.9	7.2	6.7	6.2	5.7
		3	18.8	16.4	14.4	12.8	11.5	10.3	9.4	8.6	7.9	7.2	6.7	6.2	5.7
		q3	27.1	26.4	25.9	25.4	25.0	24.7	24.4	24.1	23.8	23.6	23.4	3.2	23.0
		q4	32.9	31.8	30.8	29.9	29.2	28.6	28.0	27.5	27.0	26.6	26.2	25.9	25.5

2W	THK	No. Spans	Span (m)												
			1.80	2.00	2.15	2.30	2.45	2.60	2.75	2.90	3.05	3.20	3.35	3.50	3.65
(Total Slab Thickness) 115 mm	0.75 mm	1	13.1	11.3	8.1	6.9	6.0	5.2	4.5	3.9	3.4	2.9	2.5	2.2	1.9
		2	13.1	11.3	9.8	8.7	7.7	6.8	4.5	3.9	3.4	2.9	2.5	2.2	1.9
		3	13.1	11.3	9.8	8.7	7.7	6.8	4.5	3.9	3.4	2.9	2.5	2.2	1.9
		q3	28.5	28.2	27.9	27.7	27.5	27.3	27.1	27.0	26.9	26.8	26.7	26.6	26.5
		q4	30.6	30.1	29.6	29.2	28.8	28.5	28.2	28.0	27.8	27.6	27.4	27.2	27.0
	0.90 mm	1	14.4	12.4	10.8	9.6	8.5	5.9	5.1	4.5	3.9	3.4	3.0	2.7	2.3
		2	14.4	12.4	10.8	9.6	8.5	7.6	6.8	4.5	3.9	3.4	3.0	2.7	2.3
		3	14.4	12.4	10.8	9.6	8.5	7.6	6.8	6.2	5.7	3.4	3.0	2.7	2.3
		q3	28.7	28.3	28.0	27.7	27.5	27.3	27.1	26.9	26.8	26.6	26.5	26.4	26.3
		q4	31.6	31.0	30.4	29.9	29.5	29.1	28.7	28.4	28.1	27.9	27.7	27.5	27.3
(Slab Wt): 2.14 kPa	1.20 mm	1	17.3	15.0	13.2	11.7	10.4	9.3	8.5	7.7	7.0	4.7	4.2	3.7	3.4
		2	17.3	15.0	13.2	11.7	10.4	9.3	8.5	7.7	7.0	6.5	4.2	3.7	3.4
		3	17.3	15.0	13.2	11.7	10.4	9.3	8.5	7.7	7.0	6.5	5.9	5.5	3.4
		q3	29.5	29.0	28.6	28.3	27.9	27.6	27.4	27.1	26.9	26.8	26.6	26.4	26.3
		q4	33.9	33.0	32.3	31.6	31.0	30.5	30.0	29.6	29.2	28.9	28.6	28.3	28.1
	1.50 mm	1	20.9	18.2	16.1	14.3	12.8	11.5	10.5	9.6	8.8	8.0	5.7	5.1	4.6
		2	20.9	18.2	16.1	14.3	12.8	11.5	10.5	9.6	8.8	8.0	7.4	6.9	6.4
		3	20.9	18.2	16.1	14.3	12.8	11.5	10.5	9.6	8.8	8.0	7.4	6.9	6.4
		q3	30.6	30.0	29.5	29.0	28.6	28.2	27.9	27.6	27.4	27.1	26.9	26.7	26.6
		q4	36.4	35.3	34.3	33.5	32.8	32.1	31.5	31.0	30.6	30.1	29.8	29.4	29.1

- In shaded areas to the right of the heavy line, mid-span deck shoring required during construction.
- q3 and q4 : "q" = allowable diaphragm shear (kN/m) : "3", "4" = number of welds of support



# 2W Composite Floor

Allowable Superimposed Load (kPa) & Diaphragm Shear Capacity (kN/m) Normal Weight Concrete (2400 kg/m<sup>3</sup>)

2W	THK	No. Spans	Span (m)												
			1.80	2.00	2.15	2.30	2.45	2.60	2.75	2.90	3.05	3.20	3.35	3.50	3.65
(Total Slab Thickness) 140 mm (Slab Wt): 2.74 kPa	0.75 mm	1	16.2	11.8	10.0	8.6	7.3	6.3	5.5	4.7	4.1	3.6	3.1	2.7	2.3
		2	16.2	14.0	12.2	10.7	7.3	6.3	5.5	4.7	4.1	3.6	3.1	2.7	2.3
		3	16.2	14.0	12.2	10.7	7.3	6.3	5.5	4.7	4.1	3.6	3.1	2.7	2.3
		q3	35.6	35.3	35.0	34.8	34.6	34.4	34.3	34.1	34.0	33.9	33.8	33.7	33.6
		q4	37.8	37.2	36.7	36.3	36.0	35.6	35.4	35.1	34.9	34.7	34.5	34.3	34.2
	0.90 mm	1	17.8	15.3	13.4	9.6	8.3	7.2	6.3	5.5	4.8	4.2	3.7	3.3	2.8
		2	17.8	15.3	13.4	11.8	10.5	9.4	6.3	5.5	4.8	4.2	3.7	3.3	2.8
		3	17.8	15.3	13.4	11.8	10.5	9.4	8.5	5.5	4.8	4.2	3.73	3.3	2.8
		q3	35.8	35.5	35.1	34.9	34.6	34.4	34.2	34.1	33.9	33.8	33.6	33.6	33.4
		q4	38.8	38.1	37.5	37.0	36.6	36.2	35.8	35.6	35.3	35.0	34.8	34.6	34.4
1.20 mm	1	21.3	18.5	16.2	14.4	12.8	11.5	10.4	7.3	6.5	5.7	5.1	4.6	4.1	
	2	21.3	18.5	16.2	14.4	12.8	11.5	10.4	9.5	8.7	5.7	5.1	4.6	4.1	
	3	21.3	18.5	16.2	14.4	12.8	11.5	10.4	9.5	8.7	8.0	7.3	4.6	4.1	
	q3	36.7	36.2	35.7	35.4	35.0	34.8	34.5	34.3	34.1	33.9	33.7	33.6	33.4	
	q4	41.0	40.2	39.4	38.7	38.1	37.6	37.1	36.7	36.4	36.0	35.7	35.4	35.2	
1.0 hr fire rating	1.50 mm	1	25.7	22.4	19.7	17.6	15.7	14.2	12.9	11.7	10.7	7.7	6.9	6.2	5.7
		2	25.7	22.4	19.7	17.6	15.7	14.2	12.9	11.7	10.7	9.9	9.1	6.2	5.7
		3	25.7	22.4	19.7	17.6	15.7	14.2	12.9	11.7	10.7	9.9	9.1	8.5	7.9
		q3	37.8	37.1	36.6	36.1	35.7	35.4	35.0	34.8	34.5	34.3	34.1	33.9	33.7
		q4	43.6	42.4	41.5	40.6	39.9	39.2	38.7	38.2	37.7	37.3	36.9	36.5	36.2
(Total Slab Thickness) 150 mm (Slab Wt): 2.98 kPa	0.75 mm	1	17.9	13.0	11.0	9.4	8.1	6.9	6.0	5.2	4.5	3.9	3.4	2.9	2.5
		2	17.9	15.4	13.4	11.8	8.1	6.9	6.0	5.2	4.5	3.9	3.4	2.9	2.5
		3	17.9	15.4	13.4	11.8	8.1	6.9	6.0	5.2	4.5	3.9	3.4	2.9	2.5
		q3	39.2	38.9	38.6	38.4	38.2	38.0	37.8	37.7	37.6	37.5	37.4	37.3	37.2
		q4	41.3	40.8	40.3	39.9	39.5	39.2	38.9	38.7	38.4	38.2	38.1	37.9	37.7
	0.90 mm	1	19.5	16.9	14.8	10.6	9.1	8.0	6.9	6.0	5.3	4.6	4.1	3.5	3.1
		2	19.5	16.9	14.8	13.0	11.5	8.0	6.9	6.0	5.3	4.6	4.1	3.5	3.1
		3	19.5	16.9	14.8	13.0	11.5	10.3	6.9	6.0	5.3	4.6	4.1	3.5	3.1
		q3	39.4	39.0	38.7	38.4	38.2	38.0	37.8	37.6	37.5	37.3	37.2	37.1	37.0
		q4	42.3	41.7	41.1	40.6	40.1	39.8	39.4	39.1	38.8	38.6	38.4	38.2	38.0
1.20 mm	1	23.4	20.4	17.9	15.8	14.1	12.7	9.0	8.0	7.1	6.3	5.6	5.0	4.5	
	2	23.4	20.4	17.9	15.8	14.1	12.7	11.4	10.4	7.1	6.3	5.6	5.0	4.5	
	3	23.4	20.4	17.9	15.8	14.1	12.7	11.4	10.4	9.5	8.7	5.6	5.0	4.5	
	q3	40.2	39.7	39.3	38.9	38.6	38.3	38.1	37.8	37.6	37.4	37.3	37.1	37.0	
	q4	44.6	43.7	42.9	42.3	41.7	41.2	40.7	40.3	39.9	39.6	39.3	39.0	38.8	
1.5 hr fire rating	1.50 mm	1	28.2	24.6	21.7	19.3	17.3	15.6	14.1	12.9	9.3	8.4	7.6	6.8	6.2
		2	28.2	24.6	21.7	19.3	17.3	15.6	14.1	12.9	11.8	10.9	7.6	6.8	6.2
		3	28.2	24.6	21.7	19.3	17.3	15.6	14.1	12.9	11.8	10.9	10.1	9.3	6.2
		q3	41.3	40.7	40.2	39.7	39.3	38.9	38.6	38.3	38.1	37.8	37.6	37.4	37.3
		q4	47.1	46.0	45.0	44.2	43.5	42.8	42.2	41.7	41.3	40.8	40.5	40.1	39.8

1. In shaded areas to the right of the heavy line, mid-span deck shoring required during construction.  
 2. q3 and q4 : "q" = allowable diaphragm shear (kN/m) ; "3", "4" = number of welds of support



# 2W Composite Floor

Allowable Superimposed Load (kPa) & Diaphragm Shear Capacity (kN/m) Normal Weight Concrete (2400 kg/m<sup>3</sup>)

2W	THK	No. Spans	Span (m)												
			1.80	2.00	2.15	2.30	2.45	2.60	2.75	2.90	3.05	3.20	3.35	3.50	3.65
(Total Slab Thickness) 165 mm	0.75 mm	1	16.9	14.2	12.0	10.3	8.8	7.6	6.6	5.7	4.9	4.3	3.7	3.2	2.7
		2	19.5	16.8	14.7	10.3	8.8	7.6	6.6	5.7	4.9	4.3	3.7	3.2	2.7
		3	19.5	16.8	14.7	10.3	8.8	7.6	6.6	5.7	4.9	4.3	3.7	3.2	2.7
		q3	42.7	42.4	42.2	41.9	41.7	41.6	41.3	41.1	41.0	40.9	40.8	40.7	40.6
		q4	44.9	44.3	43.9	43.4	43.1	42.8	42.5	42.2	42.0	41.8	41.6	41.4	41.3
	0.90 mm	1	21.4	18.4	13.5	11.6	10.0	8.7	7.6	6.6	5.7	5.0	4.4	3.9	3.4
		2	21.4	18.4	16.1	14.2	12.6	8.7	7.6	6.6	5.7	5.0	4.4	3.9	3.4
		3	21.4	18.4	16.1	14.2	12.6	11.3	7.6	6.6	5.7	5.0	4.4	3.9	3.4
		q3	43.0	42.6	42.3	42.0	41.7	41.5	41.3	41.2	41.0	40.9	40.8	40.6	40.5
		q4	45.9	45.2	44.6	44.1	43.7	43.3	43.0	42.7	42.4	42.2	41.9	41.7	41.5
1.20 mm	1	25.6	22.2	19.5	17.2	15.4	13.8	9.9	8.7	7.7	6.8	6.1	5.5	4.8	
	2	25.6	22.2	19.5	17.2	15.4	13.8	12.5	8.7	7.7	6.8	6.1	5.5	4.8	
	3	25.6	22.2	19.5	17.2	15.4	13.8	12.5	11.4	10.4	6.8	6.1	5.5	4.8	
	q3	43.8	43.3	42.9	42.5	42.2	41.9	41.4	41.2	41.0	40.8	40.7	40.5	40.4	
	q4	48.2	47.3	46.5	45.8	45.3	44.7	44.3	43.9	43.5	43.2	42.9	42.6	42.3	
2 hr fire rating	1.50 mm	1	30.8	26.9	23.7	21.0	18.9	17.0	15.4	14.1	10.2	9.1	8.2	7.5	6.8
		2	30.8	26.9	23.7	21.0	18.9	17.0	15.4	14.1	12.9	9.1	8.2	7.5	6.8
		3	30.8	26.9	23.7	21.0	18.9	17.0	15.4	14.1	12.9	11.9	11.0	10.2	6.8
	q3	44.9	44.3	43.7	43.3	42.9	42.5	42.2	41.9	41.6	41.4	41.2	41.0	40.8	
	q4	50.7	49.6	48.6	47.8	47.0	46.4	45.8	45.3	44.8	44.4	44.0	43.7	43.3	

2W	THK	No. Spans	Span (m)												
			1.80	2.00	2.15	2.30	2.45	2.60	2.75	2.90	3.05	3.20	3.35	3.50	3.65
(Total Slab Thickness) 185 mm	0.75 mm	1	19.1	16.0	13.6	11.6	10.0	8.6	7.4	6.4	5.6	4.8	4.2	3.6	3.1
		2	22.2	19.0	16.5	11.6	10.0	8.6	7.4	6.4	5.6	4.8	4.2	3.6	3.1
		3	22.2	19.0	16.5	11.6	10.0	8.6	7.4	6.4	5.6	4.8	4.2	3.6	3.1
		q3	48.1	47.8	47.5	47.3	47.1	46.9	46.7	46.6	46.5	46.4	46.2	46.2	46.1
		q4	50.2	49.7	49.2	48.8	48.4	48.1	47.8	47.6	47.4	47.1	46.9	46.8	46.6
	0.90 mm	1	24.1	20.8	15.2	13.1	11.3	9.8	8.5	7.4	6.5	5.7	5.0	4.4	3.8
		2	24.1	20.8	18.2	16.0	11.3	9.8	8.5	7.4	6.5	5.7	5.0	4.4	3.8
		3	24.1	20.8	18.2	16.0	14.2	9.8	8.5	7.4	6.5	5.7	5.0	4.4	3.8
		q3	49.8	47.9	47.6	47.3	47.1	46.9	46.7	46.5	46.4	46.2	46.1	46.0	45.9
		q4	51.2	50.6	50.0	49.5	49.1	48.7	48.3	48.0	47.7	47.5	47.3	47.1	46.9
(Slab Wt): 3.83 kPa	1.20 mm	1	28.9	25.1	22.0	19.5	17.4	12.6	11.1	9.8	8.7	7.8	5.5	6.1	5.5
		2	28.9	25.1	22.0	19.5	17.4	15.6	11.1	9.8	8.7	7.8	5.5	6.1	5.5
		3	28.9	25.1	22.0	19.5	17.4	15.6	14.1	12.8	8.7	7.8	5.5	6.1	5.5
	q3	49.1	48.6	48.2	47.8	47.5	47.2	47.0	46.7	46.5	46.4	46.2	46.0	45.9	
	q4	53.5	52.6	51.9	51.2	50.6	50.1	49.6	49.2	48.8	48.5	48.2	47.9	47.7	
3 hr fire rating	1.50 mm	1	34.7	30.3	26.7	23.8	21.3	19.2	17.4	12.8	11.5	10.3	9.3	8.4	7.6
		2	34.7	30.3	26.7	23.8	21.3	19.2	17.4	15.9	11.5	10.3	9.3	8.4	7.6
		3	34.7	30.3	26.7	23.8	21.3	19.2	17.4	15.9	14.5	13.4	12.4	8.4	7.6
	q3	50.2	49.6	49.1	48.6	48.2	47.8	47.5	47.2	47.0	46.7	46.5	46.3	46.2	
	q4	56.0	54.9	53.9	53.1	52.4	51.7	51.1	50.6	50.2	49.7	49.3	49.0	48.7	

- In shaded areas to the right of the heavy line, mid-span deck shoring required during construction.
- q3 and q4 : "q" = allowable diaphragm shear (kN/m) : "3", "4" = number of welds of support