2.0DS-30 FL FORMLOK® DOVETAIL DECK
LIGHT WEIGHT CONCRETE (1840 kg/m³)

Metric LSD

Maximum Unshored Spans

Slab Depth			Maximum Unshored Construction Clear Span (mm)		
Total (mm)	Topping (mm)	Deck Gage	1	2	3
102	51	22	2860	3138	3243
		20	3160	3455	3571
		18	3453	4013	4037
		16	3671	4503	4281
115	64	22	2735	3011	3111
		20	3032	3316	3427
		18	3316	3854	3916
		16	3552	4327	4156
135	84	22	2574	2842	2937
		20	2870	3131	3236
		18	3142	3641	3761
		16	3369	4091	3995

Composite Deck-Slab Properties

Concrete + Deck (kPa)	Deflection $I_d = (I_{cr}+I_u)/2$ (mm^4x10^3/m)	Moment $øM_{no}$ (kN-m/m)	Shear $øV_{no}$ (kN/m)
1.8	6754.61	26.44	84
1.8	7249.16	31.03	84
1.8	8125.73	39.67	84
1.9	8902.29	47.87	84
2.0	9386.46	29.64	95
2.0	10059.63	34.84	95
2.1	11252.02	44.63	95
2.1	12306.41	53.94	95
2.4	14612.98	34.74	104
2.4	15637.53	40.92	111
2.4	17458.40	52.60	111
2.5	19073.46	63.76	111

Notes:

1. Maximum unshored spans are based on 1.0 kPa uniform construction live load and 2.2 kN/m concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Factored Load, $øW_n$, / Deflection at L/360 (kPa)

LWC (1840 kg/m³), f'_c = 25 MPa

Total Slab Depth	Deck Gage	Span (mm) 3000	3600	3900	4200	4500	4800	5400	6000
102	22	21.3/10.8	14.1/6.3	11.7/4.9	9.8/3.9	8.2/3.2	6.9/2.6	5.0/1.8	3.6/1.3
	20	25.3/11.6	16.9/6.7	14.1/5.3	11.8/4.2	10.0/3.4	8.5/2.8	6.3/2.0	4.6/1.4
	18	32.9/13.0	22.2/7.5	18.6/5.9	15.7/4.7	13.4/3.8	11.5/3.2	8.6/2.2	6.5/1.6
	16	40.2/14.3	27.2/8.2	22.8/6.5	19.3/5.2	16.6/4.2	14.3/3.4	10.8/2.4	8.3/1.8
115	22	23.8/15.1	15.8/8.7	13.1/6.8	10.9/5.5	9.2/4.5	7.8/3.6	5.6/2.6	4.1/1.9
	20	28.4/16.1	19.0/9.3	15.8/7.3	13.3/5.9	11.2/4.8	9.6/3.9	7.0/2.7	5.2/2.0
	18	37.1/18.1	24.9/10.4	20.9/8.2	17.7/6.6	15.0/5.3	12.9/4.4	9.7/3.1	7.3/2.3
	16	45.3/19.8	30.6/11.4	25.7/9.0	21.8/7.2	18.7/5.8	16.1/4.8	12.2/3.4	9.3/2.4
135	22	27.9/23.5	18.5/13.6	15.3/10.7	12.8/8.5	10.8/6.9	9.1/5.7	6.6/4.0	4.7/2.9
	20	33.4/25.1	22.3/14.5	18.5/11.4	15.6/9.1	13.2/7.4	11.2/6.1	8.2/4.3	6.1/3.1
	18	43.7/28.0	29.4/16.2	24.6/12.7	20.8/10.2	17.7/8.3	15.2/6.8	11.4/4.8	8.7/3.5
	16	53.6/30.6	36.2/17.7	30.5/13.9	25.8/11.2	22.1/9.0	19.1/7.5	14.4/5.2	11.1/3.8

Notes:

1. The composite deck-slab design is based on tested performance and engineering analysis in accordance Section 7.6.1 of CSSBI 12M-2024.
2. For high loads long term concrete creep should be considered.
3. See Composite Deck-Slab Superimposed Load tool for alternate slabs.

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2.0DS-30 FL Deck-Slab Information

Total Slab Depth (mm)	Cover Depth (mm)	Theoretical Concrete Volume (m^3/m^2)	Min. A_s for T&S (mm^2/m)	Recommended WWR for Temperature and Shrinkage
Normal Weight Concrete (2325 kg/m^3)				**f'_c = 20 MPa**
102	**51**	0.091	60	152x152-MW9.1xMW9.1
115	**64**	0.104	60	152x152-MW9.1xMW9.1
120	**69**	0.109	60	152x152-MW9.1xMW9.1
125	**74**	0.114	60	152x152-MW9.1xMW9.1
135	**84**	0.124	72	152x152-MW13.3xMW13.3
140	**89**	0.129	87	152x152-MW13.3xMW13.3
155	**104**	0.144	132	152x152-MW22.6xMW22.6
170	**119**	0.159	177	102x102-MW18.7xMW18.7
Light Weight Concrete (1840 kg/m^3)				**f'_c = 25 MPa**
102	**51**	0.091	60	152x152-MW9.1xMW9.1
115	**64**	0.104	60	152x152-MW9.1xMW9.1
125	**74**	0.114	60	152x152-MW9.1xMW9.1
135	**84**	0.124	72	152x152-MW13.3xMW13.3
140	**89**	0.129	87	152x152-MW13.3xMW13.3
155	**104**	0.144	132	152x152-MW22.6xMW22.6

Notes:

1. Recommended temperature and shrinkage reinforcement in accordance with CSSBI S3-2019, Table 2.