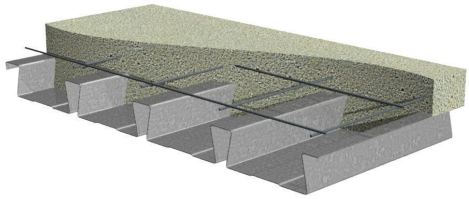
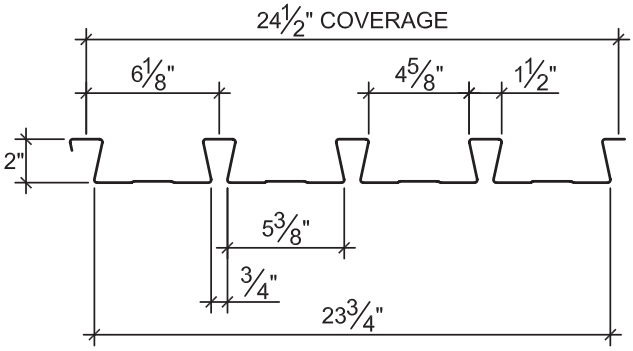
2.0D FORMLOK DOVETAIL DECK

- Enhanced 2-Coat Polyester Paint
- White Factory Primer Paint
- Galvanized Finish
- UL Listed



Nominal Dimensions




STANDARD SIDELAP

Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2Ie+Ig)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.1	0.0295	40	0.387	0.359	0.272	0.272	816	816	4401
20	2.6	0.0358	40	0.472	0.447	0.343	0.334	1029	1002	5316
18	3.4	0.0474	40	0.626	0.612	0.463	0.450	1389	1350	6968
16	4.3	0.0598	40	0.792	0.791	0.587	0.576	1761	1728	8698

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	999	1098	1264	1403	1905	2255	1075	1158	1297	1415	2331	2792
20	1425	1561	1790	1982	2712	3192	1618	1737	1937	2105	3358	4001
18	2381	2596	2957	3262	4516	5272	2897	3094	3426	3705	5672	6705
16	3638	3951	4476	4919	6885	7973	4656	4953	5451	5871	8726	10235

Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI C-2017
- IAPMO UES ER-423 and UL Listed

Optional Features

- Inquire regarding cost and lead times for:
  - -19 gage
  - -Short cuts < 6'-0"
  - -Alternative metallic and painted finishes

2.0D FORMLOK® DOVETAIL DECK-SLAB
NORMAL WEIGHT CONCRETE (145 pcf)

LRFD

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	6'-10"	7'-10"	8'-1"
		20	7'-11"	8'-8"	8'-11"
		18	9'-6"	10'-0"	10'-4"
		16	10'-11"	11'-3"	11'-8"
5¼"	3¼"	22	6'-2"	7'-1"	7'-4"
		20	7'-2"	7'-10"	8'-1"
		18	8'-6"	9'-1"	9'-4"
		16	9'-9"	10'-2"	10'-6"
5½"	3½"	22	6'-1"	6'-11"	7'-2"
		20	7'-0"	7'-8"	7'-11"
		18	8'-5"	8'-11"	9'-2"
		16	9'-7"	10'-0"	10'-4"

Composite Deck-Slab Properties

Deck Gage	Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
22	46.0	5.75	5.12	5.96
20	46.5	6.16	6.09	5.96
18	47.3	6.85	7.77	5.96
16	48.2	7.50	9.48	5.96
22	61.1	12.19	6.60	7.82
20	61.6	13.03	7.87	7.82
18	62.4	14.42	10.10	7.82
16	63.3	15.75	12.38	7.82
22	64.1	13.87	6.90	8.03
20	64.6	14.81	8.23	8.19
18	65.4	16.39	10.57	8.19
16	66.3	17.90	12.98	8.19

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

NWC (145 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		10'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	22	354/251	229/145	187/114	153/91	126/74	104/61	71/43	47/31
	20	430/269	282/155	232/122	192/98	160/79	134/65	94/46	65/33
	18	564/299	374/173	311/136	260/109	219/88	186/73	135/51	98/37
	16	700/327	469/189	391/149	329/119	279/97	238/80	176/56	131/40
5¼"	22	454/532	293/308	239/242	196/194	161/157	132/130	89/91	58/66
	20	555/569	363/329	298/259	247/207	205/168	171/138	120/97	83/71
	18	732/630	485/364	403/286	337/229	284/186	240/153	174/108	127/78
	16	914/688	611/398	510/313	429/250	364/203	310/168	229/118	171/86
5½"	22	475/606	306/350	249/275	204/220	168/179	138/148	93/103	61/75
	20	580/647	379/374	312/294	258/235	215/191	179/158	125/111	87/80
	18	767/716	508/414	422/325	353/260	297/212	251/174	182/122	132/89
	16	958/782	641/452	534/355	450/285	381/231	326/190	240/134	180/97

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

2.0D FORMLOK® DOVETAIL DECK-SLAB
LIGHT WEIGHT CONCRETE (110 pcf)

LRFD

Maximum Unshored Spans

Slab Depth		Deck	Maximum Unshored Construction Clear Span		
Total	Topping	Gage	1	2	3
4"	2"	22	7'-7"	8'-8"	8'-11"
		20	8'-9"	9'-6"	9'-10"
		18	10'-6"	11'-0"	11'-5"
		16	11'-10"	12'-5"	12'-10"
4½"	2½"	22	7'-3"	8'-4"	8'-7"
		20	8'-5"	9'-2"	9'-6"
		18	10'-1"	10'-7"	10'-11"
		16	11'-6"	11'-11"	12'-4"
5¼"	3¼"	22	6'-10"	7'-10"	8'-1"
		20	7'-11"	8'-8"	9'-0"
		18	9'-6"	10'-0"	10'-4"
		16	10'-11"	11'-4"	11'-8"

Composite Deck-Slab Properties

Deck Gage	Concrete + Deck (psf)	Deflection $I_d = (I_{cr}+I_u)/2$ (in⁴/ft)	Moment ϕM_{no} (kip-ft/ft)	Shear ϕV_{no} (kip/ft)
22	35.4	4.43	4.91	5.96
20	35.9	4.79	5.81	5.96
18	36.7	5.36	7.38	5.96
16	37.6	5.89	8.96	5.96
22	40.0	6.11	5.48	6.45
20	40.5	6.59	6.49	6.70
18	41.3	7.36	8.26	6.70
16	42.2	8.09	10.05	6.70
22	46.9	9.33	6.36	6.87
20	47.4	10.04	7.55	7.69
18	48.2	11.21	9.64	7.82
16	49.1	12.30	11.77	7.82

Note:

1. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Design Load, ϕW_n, / Deflection at L/360 (psf)

LWC (110 pcf), f'_c = 3000 psi

Total Slab Depth	Deck Gage	Span (ft-in.)							
		10'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	18'-0"	20'-0"
4"	22	350/193	230/112	189/88	157/70	131/57	110/47	78/33	55/24
	20	421/209	279/121	231/95	193/76	163/61	138/51	100/35	73/26
	18	546/234	365/135	305/106	257/85	218/69	186/57	138/40	103/29
	16	671/257	452/149	379/117	320/93	273/76	234/62	176/44	134/32
4½"	22	390/267	256/154	211/121	175/97	146/79	123/65	87/45	61/33
	20	470/287	311/166	258/131	216/104	182/85	154/70	111/49	81/35
	18	611/321	409/186	341/146	287/117	244/95	208/78	154/55	115/40
	16	753/353	507/204	425/160	359/128	306/104	263/86	197/60	150/44
5¼"	22	452/407	296/236	244/185	203/148	169/120	142/99	100/69	70/50
	20	547/438	362/254	300/199	251/159	211/130	179/107	129/75	94/54
	18	713/489	477/283	398/222	335/178	284/145	243/119	180/83	135/61
	16	882/537	594/311	498/244	421/195	359/159	308/131	231/92	176/67

Notes:

1. For high loads long term concrete creep should be considered.
2. Use Composite Deck-Slab Strength Web Based Solutions for alternate slabs or ASD design.

2.0D FormLok Deck-Slab Information

Total Slab Depth (in.)	Theoretical Concrete Volume (yd^3/100 ft^2)	Min. A_s for T&S ($in.^2$)	Recommended Reinforcing for Temperature and Shrinkage				
			WWR (OR)	Bekaert Dramix® Steel Fiber Alternates to WWR (pcy)			
				3D 65/60BG	3D 80/60BG	4D 65/60BG	4D 80/60BG or 5D 65/60BG
Normal Weight Concrete (145 pcf)							
4	1.12	0.028	6x6-W1.4xW1.4	27	22	33	34
4½	1.28	0.028	6x6-W1.4xW1.4	22	14	33	34
4¾	1.35	0.028	6x6-W1.4xW1.4	20	14	33	34
5	1.43	0.028	6x6-W1.4xW1.4	19	14	33	34
5¼	1.51	0.029	6x6-W2.1xW2.1	18	14	33	34
5½	1.58	0.032	6x6-W2.1xW2.1	18	14	33	34
6	1.74	0.036	6x6-W2.1xW2.1	18	14	33	34
6¾	1.97	0.043	6x6-W2.9xW2.9	18	14	33	34
Light Weight Concrete (110 pcf)							
4	1.12	0.028	6X6-W1.4xW1.4	N/A	33	33	34
4½	1.28	0.028	6x6-W1.4xW1.4	30	27	33	34
5	1.43	0.028	6x6-W1.4xW1.4	23	24	33	34
5¼	1.51	0.029	6x6-W2.1xW2.1	22	23	33	34
5½	1.58	0.032	6x6-W2.1xW2.1	22	23	33	34
6	1.74	0.036	6x6-W2.1xW2.1	22	23	33	34

Notes:

1. Recommended WWR reinforcing is for minimum temperature and shrinkage per SDI-C. Larger WWR may be required to comply with UL Fire Resistant Designs.
2. FRC reinforcement is based on IAPMO UES ER-497 and ER-465.
3. Dramix® 4D 65/60BG, 4D 80/60BG and 5D 65/60BG should only be used when both required for diaphragm reinforcement and with minimum f'_c = 4000 psi.
4. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R13907 for additional information.
5. For information on Bekaert Dramix® fibers contact 770-514-2295 or infobuilding@bekaert.com.
6. DRAMIX is a registered trademark of Bekaert.