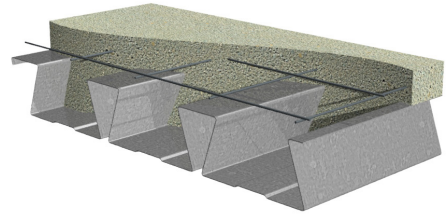
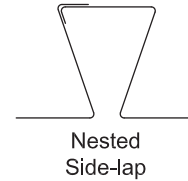
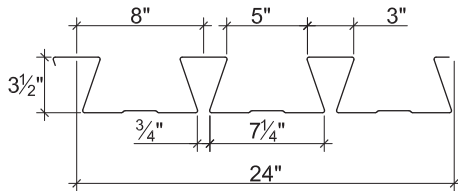


## 3.5D FORMLOK DOVETAIL DECK

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



## Nominal Dimensions



## 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 $I_d = (2I_e + I_g)/3$		Effective Section Modulus at $F_y = 40$ ksi		Allowable Moment		Vertical Web Shear $V_n/\Omega$ (lb/ft)
				$I_{d+}$ (in <sup>4</sup> /ft)	$I_{d-}$ (in <sup>4</sup> /ft)	$S_{e+}$ (in <sup>3</sup> /ft)	$S_{e-}$ (in <sup>3</sup> /ft)	$M_{n+}/\Omega$ (lb-ft/ft)	$M_{n-}/\Omega$ (lb-ft/ft)	
20	3.3	0.0358	40	1.762	1.646	0.676	0.781	1349	1559	3435
18	4.3	0.0474	40	2.415	2.272	0.980	1.070	1956	2136	6012
16	5.4	0.0598	40	3.133	2.968	1.317	1.377	2629	2749	8313

## Allowable Reactions at Supports Based on Web Crippling, $R_n/\Omega$ (lb/ft)

Deck Gage	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	2"	3"	4"	5"	4"	6"	2"	3"	4"	5"	4"	6"
20	693	794	880	955	1459	1670	714	796	865	926	1724	1991
18	1168	1330	1467	1588	2422	2753	1310	1450	1568	1672	2927	3360
16	1793	2032	2233	2410	3681	4162	2137	2352	2533	2693	4515	5157

## 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

# 3.5D FORMLOK® DOVETAIL DECK-SLAB NORMAL WEIGHT CONCRETE (145 pcf)

ASD

		Maximum Unshored Spans			Composite Deck-Slab Properties				
Slab Depth Total	Topping	Deck Gage	Maximum Unshored Construction Clear Span			Concrete + Deck (psf)	Deflection $I_d = (I_{cr} + I_u)/2$ (in <sup>4</sup> /ft)	Moment $M_{no}/\Omega$ (kip-ft/ft)	Shear $V_{no}/\Omega$ (kip/ft)
			1	2	3				
5½"	2"	20	10'-11"	12'-2"	12'-7"	59.9	14.40	6.87	4.52
		18	13'-6"	14'-3"	14'-8"	60.9	15.99	8.74	4.52
		16	14'-9"	16'-1"	16'-7"	62.0	17.61	10.32	4.52
5¾"	2¼"	20	10'-9"	11'-11"	12'-4"	62.9	16.27	7.13	4.72
		18	13'-3"	14'-0"	14'-5"	63.9	18.03	9.13	4.72
		16	14'-7"	15'-9"	16'-4"	65.0	19.75	11.10	4.72
6"	2½"	20	10'-6"	11'-9"	12'-1"	65.9	18.29	7.39	4.93
		18	13'-0"	13'-9"	14'-2"	66.9	20.24	9.47	4.93
		16	14'-5"	15'-6"	16'-0"	68.0	22.14	11.59	4.93

**Note:**

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

## Superimposed Allowable Load, $W_n/\Omega$ , Limited by L/360 (psf)

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

Total Slab Depth	Deck Gage	Span (ft.-in.)								
		15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	184	153	128	107	91	77	64	44	28
	18	207	170	142	119	101	87	75	57	44
	16	228	187	156	131	112	96	83	63	49
5¾"	20	190	159	134	113	95	79	66	44	28
	18	233	192	160	135	114	98	85	64	50
	16	255	210	175	147	125	107	93	70	55
6"	20	196	165	138	116	97	81	68	45	28
	18	262	215	180	151	128	110	95	72	54
	16	286	236	196	165	141	120	104	79	61

**Notes:**

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

# 3.5D FORMLOK® DOVETAIL DECK-SLAB LIGHT WEIGHT CONCRETE (110 pcf)

ASD

		Maximum Unshored Spans			Composite Deck-Slab Properties				
Slab Depth	Deck Gage	Maximum Unshored Construction Clear Span			Concrete + Deck (psf)	Deflection $I_d = (I_{cr} + I_u)/2$ (in <sup>4</sup> /ft)	Moment $M_{no}/\Omega$ (kip-ft/ft)	Shear $V_{no}/\Omega$ (kip/ft)	
		1	2	3					
5½"	2"	20	12'-2"	13'-5"	13'-10"	46.2	11.18	6.37	4.52
		18	14'-10"	15'-8"	16'-2"	47.2	12.69	7.86	4.52
		16	15'-9"	17'-8"	18'-2"	48.3	14.26	9.44	4.52
5¾"	2¼"	20	11'-11"	13'-2"	13'-8"	48.5	12.57	6.81	4.72
		18	14'-8"	15'-5"	15'-11"	49.5	14.13	8.35	4.72
		16	15'-7"	17'-4"	17'-11"	50.6	15.75	9.88	4.72
8"	4½"	20	10'-5"	11'-7"	12'-0"	69.1	31.09	9.31	5.61
		18	12'-10"	13'-7"	14'-0"	70.1	34.56	11.92	6.57
		16	14'-4"	15'-4"	15'-10"	71.2	37.85	14.57	6.57

**Note:**

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

## Superimposed Allowable Load, $W_n/\Omega$ , Limited by L/360 (psf)      LWC (110 pcf), $f'_c = 3000$ psi

Total Slab Depth	Deck Gage	Span (ft.-in.)								
		15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	23'-0"	25'-0"
5½"	20	144	119	99	83	71	61	52	40	31
	18	164	135	112	95	80	69	59	45	35
	16	184	152	126	106	90	77	67	51	39
5¾"	20	162	134	111	94	80	68	59	45	35
	18	182	150	125	105	90	77	66	50	39
	16	203	168	140	118	100	86	74	56	44
8"	20	262	221	188	160	137	117	99	71	50
	18	353	302	259	224	194	168	146	110	82
	16	446	384	332	283	241	206	178	135	105

**Notes:**

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

# 3.5D FORMLOK® DOVETAIL DECK-SLAB

ASD

## 3.5D FormLok Deck-Slab Information

$f'_c = 3000$  psi

Total Slab Depth (in.)	Cover Depth (in.)	Theoretical Concrete Volume (yd <sup>3</sup> /100 ft <sup>2</sup> )	Min. A <sub>s</sub> for T&S (in. <sup>2</sup> )	Recommended Reinforcing for Temperature and Shrinkage	
				WWR	(OR) Bekaert Dramix® Steel Fiber Alternate to WWR (lb/yd <sup>3</sup> )
<b>Normal Weight Concrete (145 pcf)</b>					
5½	2	1.44	0.028	6x6-W1.4xW1.4	23
5¾	2¼	1.52	0.028	6x6-W1.4xW1.4	20
6	2½	1.60	0.028	6x6-W1.4xW1.4	18
6½	3	1.75	0.028	6x6-W1.4xW1.4	15
7	3½	1.91	0.032	6x6-W2.1xW2.1	15
7¼	3¾	1.98	0.034	6x6-W2.1xW2.1	15
7½	4	2.06	0.036	6x6-W2.1xW2.1	15
8	4½	2.22	0.041	6x6-W2.1xW2.1	15
<b>Light Weight Concrete (110 pcf)</b>					
5½	2	1.44	0.028	6x6-W1.4xW1.4	33
5¾	2¼	1.52	0.028	6x6-W1.4xW1.4	28
6	2½	1.60	0.028	6x6-W1.4xW1.4	25
6½	3	1.75	0.028	6x6-W1.4xW1.4	20
7	3½	1.91	0.032	6x6-W2.1xW2.1	20
7½	4	2.06	0.036	6x6-W2.1xW2.1	20
8	4½	2.22	0.041	6x6-W2.1xW2.1	20

### Notes:

1. FRC reinforcement is based on IAPMO UES ER-465.
2. Dramix® fibers may be used in UL or ULC fire rated assemblies in lieu of WWR. See UL file R19307 for additional information.

For information on Bekaert Dramix® fibers contact 770-514-2295 or [infobuilding@bekaert.com](mailto:infobuilding@bekaert.com).

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