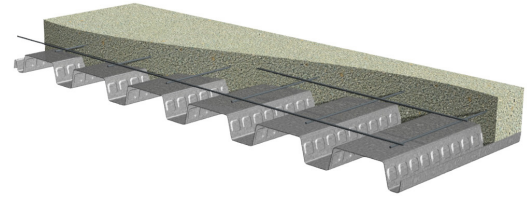


PLB™-36/B-36 FORMLOK® COMPOSITE DECKS GRADE 50 STEEL

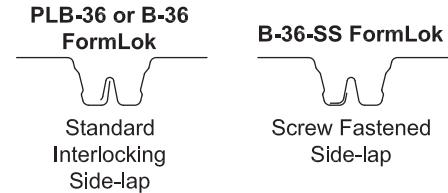
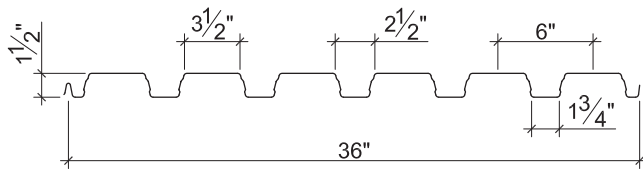
ASD

B FORMLOK DECKS

- PLB-36 FormLok Deck used with PunchLok® II System
- B-36 FormLok Deck used with TSWs or BPs
- B-36-SS FormLok Deck used with Side-lap Screws



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 $F_y = 50$ ksi		Vertical Web Shear V_n/Ω (lb/ft)
				I_{d+} (in ⁴ /ft)	I_{d-} (in ⁴ /ft)	S_{e+} (in ³ /ft)	S_{e-} (in ³ /ft)	
22	1.9	0.0299	50	0.178	0.192	0.176	0.188	2688
20	2.3	0.0359	50	0.219	0.231	0.230	0.237	3220
18	2.9	0.0478	50	0.302	0.306	0.314	0.331	4264
16	3.5	0.0598	50	0.381	0.381	0.399	0.410	5302

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	1 1/2"	2"	3"	4"	3"	4"	1 1/2"	2"	3"	4"	3"	4"
22	850	934	1075	1163	1558	1670	893	962	1077	1149	1933	2082
20	1188	1301	1492	1609	2189	2339	1316	1413	1575	1675	2743	2946
18	2001	2182	2485	2667	3714	3949	2388	2550	2822	2986	4713	5038
16	3006	3264	3698	3954	5604	5935	3775	4015	4419	4657	7164	7627

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer bottom optional
- ASTM A1008 SS GR50 Min. with gray primer bottom
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 and UL Listed
- Tables conform to ANSI/SDI C-2017

Optional Features

- Inquire regarding cost and lead times for:
 - Short cuts < 6'-0"
 - Sheet Lengths > 40'-0"
 - Alternative metallic and painted finishes
- Factory Vent Tabs

PLB™-36/B-36 FORMLOK® DECK-SLABS

NORMAL WEIGHT CONCRETE (145 pcf)

ASD

Slab Depth		Maximum Unshored Spans			Composite Deck-Slab Properties				
		Deck Gage	Maximum Unshored Construction Clear Span			Concrete + Deck (psf)	Deflection $I_d = (I_{cr} + I_u)/2$ (in ⁴ /ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
Total	Topping		1	2	3				
3½"	2"	22	6'-7"	7'-9"	7'-10"	32.5	2.68	1.89	2.01
		20	7'-10"	9'-2"	9'-4"	32.9	2.88	2.20	2.01
		18	9'-0"	10'-9"	11'-2"	33.5	3.22	2.78	2.01
		16	9'-8"	11'-11"	11'-9"	34.1	3.53	3.32	2.01
5"	3½"	22	5'-9"	6'-9"	6'-10"	50.6	7.74	3.36	3.29
		20	6'-10"	8'-0"	8'-1"	51.0	8.28	3.95	3.29
		18	7'-10"	9'-5"	9'-8"	51.6	9.24	5.06	3.29
		16	8'-5"	10'-5"	10'-5"	52.2	10.10	6.11	3.29
6"	4½"	22	5'-4"	6'-3"	6'-4"	62.7	13.32	4.43	4.27
		20	6'-4"	7'-5"	7'-6"	63.1	14.20	5.22	4.27
		18	7'-4"	8'-8"	9'-0"	63.7	15.79	6.72	4.27
		16	7'-11"	9'-8"	9'-9"	64.3	17.22	8.16	4.27

Note:

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

Superimposed Allowable Load, W_n/Ω , Limited by L/360 (psf)

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

Total Slab Depth	Deck Gage	Span (ft-in.)								
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
3½"	22	911	571	387	275	203	154	117	88	67
	20	974	671	456	326	242	172	125	94	72
	18	973	772	584	410	275	193	140	105	81
	16	973	771	637	450	301	211	154	115	89
5"	22	1593	1023	695	497	369	281	218	171	135
	20	1592	1212	826	593	442	338	264	209	168
	18	1592	1263	1044	774	580	448	353	282	229
	16	1591	1262	1043	887	711	551	436	331	255
6"	22	2074	1353	920	659	490	374	291	229	183
	20	2073	1606	1096	788	589	452	354	281	226
	18	2073	1645	1360	1034	776	600	474	380	309
	16	2072	1645	1360	1156	956	742	588	475	389

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.

PLB™-36/B-36 FORMLOK® DECK-SLABS

LIGHT WEIGHT CONCRETE (110 pcf)

ASD

Slab Depth		Maximum Unshored Spans			Composite Deck-Slab Properties				
		Deck Gage	Maximum Unshored Construction Clear Span			Concrete + Deck (psf)	Deflection $I_d = (I_{cr} + I_u)/2$ (in ⁴ /ft)	Moment M_{no}/Ω (kip-ft/ft)	Shear V_{no}/Ω (kip/ft)
Total	Topping		1	2	3				
3½"	2"	22	7'-1"	8'-5"	8'-6"	25.1	2.10	1.78	2.01
		20	8'-7"	10'-0"	10'-2"	25.5	2.26	2.07	2.01
		18	9'-10"	11'-8"	11'-11"	26.1	2.55	2.59	2.01
		16	10'-6"	12'-11"	12'-6"	26.7	2.80	3.07	2.01
4"	2½"	22	6'-10"	8'-0"	8'-1"	29.7	3.11	2.22	2.41
		20	8'-2"	9'-6"	9'-8"	30.1	3.35	2.58	2.41
		18	9'-4"	11'-2"	11'-6"	30.7	3.77	3.26	2.41
		16	10'-0"	12'-4"	12'-1"	31.3	4.14	3.89	2.41
4¾"	¾"	22	6'-5"	7'-6"	7'-7"	36.6	5.16	2.96	3.06
		20	7'-8"	8'-11"	9'-1"	37.0	5.55	3.46	3.06
		18	8'-9"	10'-6"	10'-10"	37.6	6.25	4.39	3.06
		16	9'-5"	11'-8"	11'-6"	38.2	6.86	5.27	3.06

Note:

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

Superimposed Allowable Load, W_n/Ω , Limited by L/360 (psf)

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

Total Slab Depth	Deck Gage	Span (ft-in.)								
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
3½"	22	866	545	371	265	178	125	91	68	53
	20	981	636	434	288	193	135	98	74	57
	18	981	779	515	324	217	152	111	83	64
	16	980	779	566	356	238	167	122	91	70
4"	22	1078	679	462	332	247	186	135	102	78
	20	1175	796	543	391	285	200	146	109	84
	18	1175	933	693	480	321	226	164	123	95
	16	1174	933	772	527	353	248	180	135	104
4¾"	22	1442	909	620	446	333	255	200	158	127
	20	1492	1069	731	527	395	304	239	182	140
	18	1491	1185	938	679	511	374	273	205	158
	16	1491	1185	981	822	585	411	299	225	173

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.

PLB-36/B-36 FormLok Deck-Slab Information

$f'_c = 3000$ psi

Total Slab Depth (in.)	Cover 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 Alternate to WWR (lb/yd ³)
				4D 65/60BG	
Normal Weight Concrete (145 pcf)					
3½	2	0.78	0.028	6x6-W1.4xW1.4	23
4	2½	0.94	0.028	6x6-W1.4xW1.4	18
4½	3	1.09	0.028	6x6-W1.4xW1.4	15
5	3½	1.24	0.032	6x6-W2.1xW2.1	15
6	4½	1.55	0.041	6x6-W2.1xW2.1	15
Light Weight Concrete (110 pcf)					
3½	2	0.78	0.028	6x6-W1.4xW1.4	33
4	2½	0.94	0.028	6x6-W1.4xW1.4	25
4¾	3¼	1.17	0.029	6x6-W2.1xW2.1	20
5¾	4¼	1.48	0.038	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@beckaert.com

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