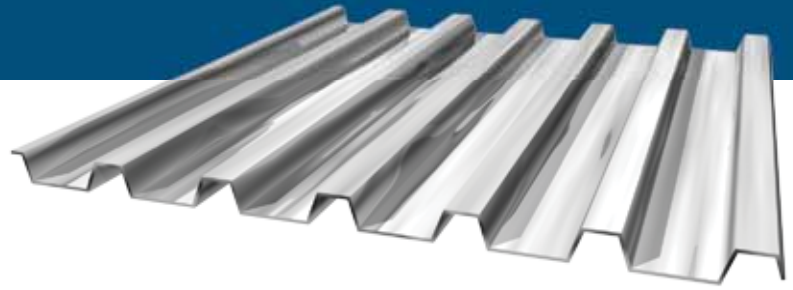




# 1.5" Form Deck



## Form Deck brought to you by the Customer Service Leader

Cordeck is a full-service manufacturer and stocking distributor of corrugated steel deck, flashing and trim, and other building construction accessories. Cordeck's mission is to provide excellent customer service. This mission is the foundation for industry wide recognition as the service leader for prompt, reliable deliveries, guaranteed quality, and large inventory of gauges and profiles. You can be certain of the product's total, maximum effectiveness, along with our ability to deliver the industry's highest quality, service, value, and customer satisfaction. Please contact us for further information. At Cordeck, we're devoted to our customers. We stand ready to earn and keep your full confidence and trust.

## Features and Benefits

**Prompt lead times** are our specialty. All orders are promptly produced and shipped to meet your on-site specifications.

**Bundle Placement plans** are provided to ensure correct location of bundles during unloading and hoisting to steel framework.

**SDI Membership** by the manufacturer guarantees product quality in accordance to the Steel Deck Institute (SDI).

**On-spec, guaranteed quality.** Our production staff are true craftsmen, not just interested in getting the job done, but in doing it perfectly.

**Form spans shown** in the table are maximum unshored clear span lengths based on Load and Resistance Factor Design (LRFD) rationale. Form loading is based upon the SDI form span criteria that allows for the sequence of construction live loading that usually occurs during the construction phase with the placement of wet concrete by construction workers. This form span loading is represented by combinations of uniformly applied dead load and 20 psf construction load or uniformly applied dead load, superimposed with 150 lb. mid-span concentrated load.

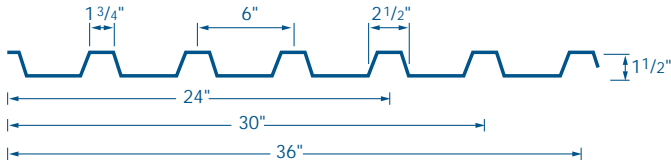
**Form Deck provides** a strong, secure, stay in-place form for poured concrete applications. Installation is fast, easy, and economical.

**Form Deck is designed** to serve as a permanent steel base for poured reinforced concrete floor slabs. Structurally, Form Deck provides a strong efficient section for forming slabs, while giving lateral stability to structural members.

**Form Deck is made from high strength**, full hard steel that conforms to ASTM A653 SS Grade 80. Galvanized in accordance with ASTM A924 Class G-60 and G-90. Form Deck should always be galvanized when used as a structural support for light weight insulating concrete fill.

**Welded wire fabric 1"** below top surface of slab is recommended. If welded wire fabric is not used, the superimposed live loads in the following tables should be reduced by 10%.

# 1.5" Form Deck



Gage	t in	Wd psf	Sp in <sup>3</sup> /ft	Sn in <sup>3</sup> /ft	Ip in <sup>4</sup> /ft	In in <sup>4</sup> /ft	Va lbs/ft	Fy ksi
24	0.0239	1.44	0.132	0.120	0.136	0.108	2634	60
22	0.0295	1.78	0.179	0.169	0.177	0.143	2754	50
20	0.0358	2.14	0.231	0.224	0.222	0.186	3322	50
18	0.0474	2.82	0.324	0.311	0.295	0.272	4350	50

Deck Gage	No. of Spans	Design Criteria	Clear Span												
			4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
24	1	Fb=36000	198	156	126	105	88	75	65	56	49	44	39	35	32
		L/240	140	98	71	54	41	33	26	21	17	15	12	10	9
		L/180	186	131	95	72	55	43	35	28	23	19	16	14	12
	2	Fb=36000	177	140	114	94	79	68	58	51	45	40	35	32	29
		L/240	301	212	154	116	89	70	56	46	38	31	26	22	19
		L/180	402	282	206	155	119	94	75	61	50	42	35	30	26
	3	Fb=36000	220	175	142	117	99	84	73	63	56	49	44	40	36
		L/240	236	166	121	91	70	55	44	36	29	25	21	18	15
		L/180	314	221	161	121	93	73	59	48	39	33	28	23	20
22	1	Fb=36000	223	176	143	118	99	84	73	64	56	49	44	40	36
		L/240	182	128	93	70	54	42	34	28	23	19	16	14	12
		L/180	242	170	124	93	72	56	45	37	30	25	21	18	15
	2	Fb=36000	207	164	133	110	93	79	68	60	52	47	41	37	34
		L/240	395	278	202	152	117	92	74	60	49	41	35	29	25
		L/180	527	370	270	203	156	123	98	80	66	55	46	39	34
	3	Fb=36000	257	204	166	137	116	99	85	74	65	58	52	47	42
		L/240	309	217	158	119	92	72	58	47	39	32	27	23	20
		L/180	412	290	211	159	122	96	77	63	52	43	36	31	26
20	1	Fb=36000	288	228	184	152	128	109	94	82	72	64	57	51	46
		L/240	228	160	117	88	67	53	42	35	28	24	20	17	15
		L/180	304	213	155	117	90	71	57	46	38	32	27	23	19
	2	Fb=36000	273	217	176	146	123	105	91	79	69	62	55	49	45
		L/240	504	354	258	194	149	117	94	76	63	53	44	38	32
		L/180	672	472	344	258	199	157	125	102	84	70	59	50	43
	3	Fb=36000	339	269	219	182	153	131	113	98	87	77	69	62	56
		L/240	394	277	202	152	117	92	74	60	49	41	35	29	25
		L/180	526	369	269	202	156	123	98	80	66	55	46	39	34
18	1	Fb=36000	404	319	259	214	180	153	132	115	101	90	80	72	65
		L/240	303	213	155	116	90	71	56	46	38	32	27	23	19
		L/180	404	283	207	155	120	94	75	61	50	42	35	30	26
	2	Fb=36000	379	301	244	203	171	146	126	110	96	85	76	68	62
		L/240	700	492	359	269	207	163	131	106	88	73	61	52	45
		L/180	934	656	478	359	277	218	174	142	117	97	82	70	60
	3	Fb=36000	468	373	304	252	212	181	157	137	120	107	95	85	77
		L/240	548	385	281	211	162	128	102	83	68	57	48	41	35
		L/180	731	513	374	281	216	136	136	111	91	76	64	55	47

## Product Information Design

- Cordeck certifies that our Form Deck has been evaluated in accordance with the applicable SDI standards and property values for the Uniform Load Tables, and meets or exceeds SDI requirements.
- The rib width limitations shown are taken at the theoretical intersection points of the flange and web projections. Depending on the radius used, the load table could vary from that shown.

# 1.5" Form Deck

1.5" Form Deck maximum construction clear spans									
Total Slab Depth	Deck Gage	Weight PSF	N.W. Concrete (145 PCF)			Weight PSF	L.W. Concrete (110 PCF)		
			1 Span	2 Span	3 Span		1 Span	2 Span	3 Span
3.5	24	37	5'-4"	7'-1"	7'-2"	28	5'-10"	7'-7"	7'-9"
	22	37	5'-9"	7'-8"	7'-9"	29	6'-4"	8'-2"	8'-5"
	20	38	6'-10"	8'-9"	9'-1"	29	7'-5"	9'-5"	9'-9"
	18	38	8'-5"	10'-3"	10'-8"	30	9'-3"	11'-1"	11'-6"
4	24	43	5'-1"	6'-9"	6'-10"	33	5'-6"	7'-4"	7'-5"
	22	43	5'-6"	7'-3"	7'-5"	33	6'-0"	7'-11"	8'-1"
	20	44	6'-5"	8'-4"	8'-8"	34	7'-1"	9'-1"	9'-5"
	18	44	7'-11"	9'-9"	10'-1"	34	8'-9"	10'-8"	11'-0"
4.5	24	49	4'-10"	6'-5"	6'-7"	38	5'-4"	7'-1"	7'-2"
	22	49	5'-3"	6'-11"	7'-1"	38	5'-9"	7'-7"	7'-9"
	20	50	6'-2"	8'-0"	8'-3"	38	6'-9"	8'-9"	9'-0"
	18	51	7'-6"	9'-4"	9'-8"	39	8'-4"	10'-3"	10'-7"
5	24	55	4'-8"	6'-2"	6'-4"	42	5'-1"	6'-9"	6'-11"
	22	56	5'-0"	6'-8"	6'-10"	43	5'-6"	7'-4"	7'-6"
	20	56	5'-10"	7'-8"	7'-11"	43	6'-6"	8'-5"	8'-8"
	18	57	7'-2"	9'-0"	9'-3"	44	8'-0"	9'-10"	10'-2"
5.5	24	61	4'-6"	5'-11"	6'-1"	47	4'-11"	6'-7"	6'-8"
	22	62	4'-10"	6'-5"	6'-7"	47	5'-4"	7'-1"	7'-2"
	20	62	5'-8"	7'-4"	7'-7"	47	6'-3"	8'-1"	8'-5"
	18	63	6'-11"	8'-8"	8'-11"	48	7'-8"	9'-6"	9'-10"
6	24	67	4'-4"	5'-9"	5'-11"	51	4'-9"	6'-4"	6'-5"
	22	68	4'-8"	6'-2"	6'-4"	52	5'-2"	6'-10"	7'-0"
	20	68	5'-6"	7'-1"	7'-4"	52	6'-0"	7'-10"	8'-1"
	18	69	6'-9"	8'-4"	8'-7"	53	7'-5"	9'-3"	9'-6"
6.5	24	73	4'-3"	5'-6"	5'-8"	56	4'-7"	6'-2"	6'-3"
	22	74	4'-7"	6'-0"	6'-2"	56	5'-0"	6'-8"	6'-9"
	20	74	5'-4"	6'-10"	7'-1"	57	5'-10"	7'-7"	7'-10"
	18	75	6'-7"	8'-1"	8'-4"	57	7'-2"	8'-11"	9'-3"

## Material

All steel to be used in Cordeck Form Deck will be galvanized, prime painted, or a combination of the two.

### 1. Prime Painted

- Form Deck shall receive one coat of standard gray primer paint over cleaned and pretreated steel.
- The primer coat is intended to protect the steel for only a reasonably short period of exposure, in normal atmospheric conditions, and shall be considered an impermanent and provisional coating.
- Field painting of prime painted material is recommended especially where the deck is exposed.

### 2. Galvanized

- All steel shall be coated to conform to ASTM A924 G-60 or G-90 or to Federal Specification QQ-S-775.
- Galvanized finish in G-60 or G-90 coating is desirable in high moisture atmospheric conditions.

- Cordeck shall not be responsible for the cleaning of the underside of steel deck to ensure bond of fireproofing. Adherence of fireproofing material is dependent on many variables. The adhesion ability of fireproofing materials is the responsibility of the fireproofing applicator.

### 3. Accessories

- Cordeck can supply end and side closures, pour stops, deck plates, rubber cell closures, screws and other accessories needed to complete the project.

# 1.5" Form Deck

## SDI Member

1. All steel deck material is manufactured by Steel Deck Institute members or manufactured in accordance to SDI.
2. Cordeck certifies that all material will be in accordance with the SDI Form Deck Manual specifications.
3. Cordeck 1.5" Form Deck conforms to all applicable SDI Form Deck Manual specifications.

## Installation

1. Cordeck steel deck shall be installed by qualified and experienced workers.
2. Deck installation drawings shall be submitted to the project architect and engineer for approval prior to the manufacture of materials.
3. Deck shall be placed in accordance with approved erection drawings.
4. Deck sheets shall be butted over supports.
5. End bearing: install deck ends over supports with a minimum end bearing of 1-1/2" or as indicated on erection drawings.
6. Each deck unit shall be placed on supporting steel framework and adjusted to final positions before permanently fastened. Do not use unfastened deck as a working platform or storage area.
7. Cutting of openings through the deck and all skew cutting shall be performed in the field. Openings not shown on the erection drawings such as those required for stack, conduits, plumbing, vents, etc., shall be cut, and reinforced if necessary, in accordance with SDI.

## Attachment

1. Form deck sheets and accessories shall be attached as soon as possible and all sheets and accessories shall be attached at the end of each working day. Electric arc welding is the best and most economical method for attaching form deck sheets to structural supports. Welder shall follow close to the placement crew.
2. All welds are to be made from the top of the deck down through the bottom flange of the ribs. Welds shall penetrate and attach all thicknesses of material to the structural supports.

3. Deck panels are to be fastened to all supports at 12" on center maximum with no less than 3/4" diameter arc spot welds. At deck butt joints, both sheets are to be fastened. Deck panels with spans greater than 5 feet shall have side laps and perimeter edges (at perimeter supports) fastened at mid-span or 36" intervals, whichever is smaller.
4. Puddle welds shall be at least 5/8" diameter or elongated puddle welds with an equal perimeter. Fillet welds, when used, shall be at least 1" long.
  - a. 1-1/2" deep deck side laps are to be screw attached or welded. 2" and 3" deep deck side laps are to be button punched, welded, or Gator Crimp (GTR).
  - b. End closures of the deck, if required are to be fastened by tack welding or sheet metal screws at 36" centers maximum. Side closures of the deck, if required, are to be fastened by 1" fillet welds at 12" centers maximum.
  - c. Pour stop accessories of the deck, if required, are to be fastened by 1" fillet welds at 12" centers maximum.

Attachment must be determined by the designer as part of the overall building design process. Values given in this document are adequate in most cases.

## Storage and Handling

1. Protect steel deck from corrosion, deformation, and other damage during storage, handling, and installation.
2. Deck not promptly erected shall be stored off the ground, with one end elevated to provide drainage. Bundles must be protected against condensation with a ventilated waterproof covering. Deck should always be protected from snow and salt.
3. Bundles must be stacked so there is no danger of shifting or material damage. Bundles must be checked for tightness, and retightened as necessary.
4. Deck bundles on the building frame must always be placed near a main supporting beam, at a column, or a wall. In no situation are the bundles to be placed on unbolted frames or on unattached and unbridged joists. The structural frame must be properly braced to receive the bundles.

"Whatever it takes"



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