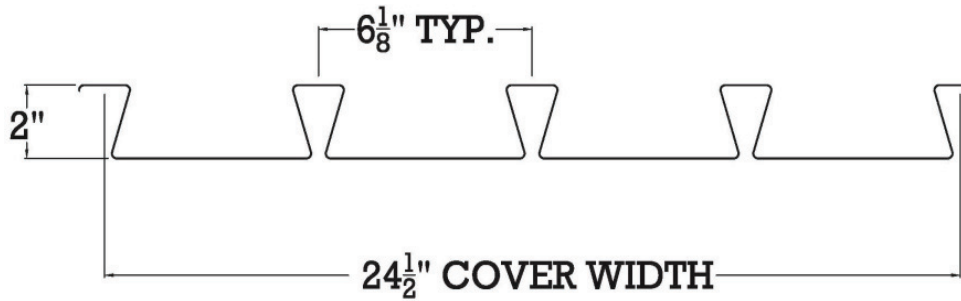


**MARCORE-S COMPOSITE DECK-18 GAUGE**  
(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK		F <sub>y</sub> =40 ksi
THICKNESS	in.	0.0474
WEIGHT	psf	3.6
AREA	in <sup>2</sup>	1.06
MOMENT OF INERTIA (I <sub>p</sub> )	in <sup>4</sup> /ft	0.68
MOMENT OF INERTIA (I <sub>N</sub> )	in <sup>4</sup> /ft	0.51
SECTION MODULUS (S <sub>p</sub> )	in <sup>3</sup> /ft	0.45
SECTION MODULUS (S <sub>N</sub> )	in <sup>3</sup> /ft	0.50
MOMENT CAPACITY (M <sub>P</sub> )	lb-in/ft	10848
MOMENT CAPACITY (M <sub>N</sub> )	lb-in/ft	10848

**GENERAL INFORMATION**

CONCRETE THICKNESS	in	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
COMPOSITE DECK THICKNESS	in	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
CONCRETE - 110 lb. LWC	psf	33.7	38.3	42.8	48.1	52.1	56.6	61.1	65.7	70.2
SECTION MODULUS (S <sub>p</sub> )	in <sup>3</sup> /ft	2.0	2.4	2.8	3.2	3.7	4.1	4.5	5.0	5.4
EFFECTIVE AREA (A)	in <sup>2</sup>	38.0	42.8	47.5	52.3	57.0	61.8	66.5	71.3	76.0
AVG/ MOMENT OF INERTIA (I <sub>av</sub> )	in <sup>4</sup> /ft	5.4	7.3	9.7	12.5	15.9	19.7	24.1	29.0	34.6
TEMP. REINFORC. W.W. F. 6"X6"		w1.4xw1.4	w1.4xw1.4	w1.4xw1.4	w2xw2	w2xw2	w2.9xw2.9	w2.9xw2.9	w2.9xw2.9	w2.9xw2.9

**SHORING RECOMMENDATION**

Span	Composite Slab Thickness, in.		4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
	MARCORE-S										
Single	18 ga.	ft.	8.75	8.50	8.00	7.75	7.75	7.50	7.25	7.00	7.00
Double	18 ga.	ft.	9.25	9.00	8.50	8.25	8.00	7.75	7.50	7.25	7.00

\*Light Weight Concrete 110 pcf

UNDERWRITERS LABORATORIES, INC. FIRE RATED FLOOR DESIGN ASSEMBLY LIVE LOAD LIMIT FOR COMPOSITE DECK SLABS IS 250 PSF.

**MARCORE-S COMPOSITE DECK-18 GAUGE**  
(WITHOUT STIFFENER RIBS)

**SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, SINGLE SPAN**

**18 GAUGE**

COMPOSITE DECK THICKNESS	in	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
MAXIMUM WORKING ALLOWABLE UNIFORM LIVE LOAD LL, LB/FT <sup>2</sup>											
SPAN											
9	ft.	368	400	400	400	400	400	400	400	400	400
10	ft.	258	380	400	400	400	400	400	400	400	400
11	ft.	185	275	400	400	400	400	400	400	400	400
12	ft.	133	202	336	388	400	400	400	400	400	400
13	ft.	97	150	253	294	387	400	400	400	400	400
14	ft.	70	111	193	225	300	362	397	400	400	400
15	ft.	50	83	148	173	234	304	340	370	400	400
16	ft.	34	61	113	134	183	240	293	319	345	370
17	ft.	22	44	86	103	143	190	244	276	299	321
18	ft.	13	30	65	78	112	150	195	241	261	280
19	ft.		19	48	59	86	119	156	199	228	245
20	ft.		10	34	43	66	93	124	161	200	216
21	ft.			23	30	49	72	99	129	164	190
22	ft.			13	19	36	55	77	103	133	167
23	ft.				10	24	40	60	82	107	136
24	ft.					15	28	45	64	86	110
25	ft.						18	32	48	67	88
26	ft.							21	35	51	70
27	ft.							12	24	38	54
28	ft.								14	26	40
29	ft.									16	28
30	ft.										18

\*Light Weight Concrete 110 pcf

UNDERWRITERS LABORATORIES, INC. FIRE RATED FLOOR DESIGN ASSEMBLY LIVE LOAD LIMIT FOR COMPOSITE DECK SLABS IS 250 PSF.

## MARCORE-S COMPOSITE DECK-18 GAUGE (WITHOUT STIFFENER RIBS)

### SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, DOUBLE & TRIPLE SPAN

**18 GAUGE**

COMPOSITE DECK THICKNESS	in	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
SPAN	MAXIMUM WORKING ALLOWABLE UNIFORM LIVE LOAD LL, LB/FT <sup>2</sup>								
16	ft.	180	193	219	244	270	296	322	347
17	ft.	155	166	189	211	234	256	278	301
18	ft.	135	144	164	184	203	223	242	262
19	ft.	117	125	143	160	177	194	212	229
20	ft.	102	109	125	140	155	170	186	201
21	ft.	86	95	109	123	136	150	163	176
22	ft.	69	83	96	108	120	132	144	155
23	ft.	54	66	84	95	105	116	127	137
24	ft.	42	52	74	83	93	102	112	121
25	ft.	31	40	62	73	82	90	99	107
26	ft.	22	30	49	64	72	79	87	94
27	ft.	14	21	38	56	63	70	77	83
28	ft.		13	28	45	55	61	67	73
29	ft.			20	34	48	54	59	64
30	ft.			12	25	41	47	51	56
31	ft.				17	31	40	45	49
32	ft.				10	22	35	38	42
33	ft.					14	27	33	36
34	ft.						19	28	30
35	ft.						11	23	25
36	ft.							15	21
37									16
38									11

\*Light Weight Concrete 110pcf

UNDERWRITERS LABORATORIES, INC. FIRE RATED FLOOR DESIGN ASSEMBLY LIVE LOAD LIMIT FOR COMPOSITE DECK SLABS IS 250 PSF

## MARCORE-S COMPOSITE DECK-18 GAUGE (WITHOUT STIFFENER RIBS)

### TWO SPAN COMPOSITE DECK 18 GAUGE 2 SPAN CONDITION REINFORCING OVER INTERMEDIATE SUPPORT

	COMPOSITE SLAB THICKNESS														
	4.0"			4.5"			5.0"			5.5"			6.0"		
	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100
SPAN															
13'-0"	#4@9	#4@8	#5@9	#4@10	#4@9	#5@10	#4@12	#4@10	#4@7	#4@13	#4@11	#4@8	#4@14	#4@12	#4@9
13'-6"	#4@8	#4@7	#5@8	#4@10	#4@8	#5@9	#4@11	#4@9	#4@7	#4@12	#4@10	#4@7	#4@13	#4@11	#4@8
14'-0"	#4@8	#5@10	#5@7	#4@9	#4@8	#5@9	#4@10	#4@9	#5@10	#4@11	#4@9	#4@7	#4@12	#4@10	#4@8
14'-6"	#5@11	#5@9	#5@6	#4@8	#4@7	#5@8	#4@9	#4@8	#5@9	#4@10	#4@9	#5@10	#4@11	#4@10	#4@7
15'-0"	#5@10	#5@9		#4@7	#5@10	#5@7	#4@8	#4@7	#5@8	#4@9	#4@8	#5@10	#4@10	#4@9	#5@11
15'-6"	#5@9	#5@8		#5@11	#5@9	#5@7	#4@8	#5@11	#5@8	#4@8	#4@7	#5@9	#4@9	#4@8	#5@10
16'-0"	#5@8	#5@7		#5@10	#5@9	#5@6	#4@7	#5@10	#5@7	#4@8	#4@7	#5@8	#4@8	#4@7	#5@9
16'-6"	#5@8	#5@7		#5@9	#5@8		#5@10	#5@9	#5@7	#4@7	#5@10	#5@7	#4@8	#4@7	#5@8
17'-0"	#5@7			#5@8	#5@7		#5@10	#5@9	#5@6	#5@11	#5@10	#5@7	#4@7	#5@11	#5@8
17'-6"	#5@7			#5@8	#5@7		#5@9	#5@8	#5@5	#5@10	#5@9	#5@7	#4@7	#5@10	#5@7
18'-0"				#5@7	#5@6		#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@10	#5@9	#5@7
18'-6"				#5@7	#5@6		#5@8	#5@7		#5@9	#5@8	#5@5	#5@10	#5@9	#5@6
19'-0"				#5@6			#5@7	#5@7		#5@8	#5@7	#5@5	#5@9	#5@8	#5@6
19'-6"							#5@7	#5@6		#5@8	#5@7	#5@5	#5@9	#5@8	#5@5
20'-0"							#5@7	#5@5		#5@7	#5@7		#5@8	#5@7	#5@5
20'-6"							#5@6			#5@7	#5@6		#5@7	#5@7	#5@5
21'-0"										#5@6	#5@5		#5@7	#5@6	
21'-6"										#5@6	#5@5		#5@7	#5@6	
22'-0"										#5@5			#5@6	#5@5	
22'-6"													#5@6	#5@5	
23'-0"													#5@5	#5@5	
23'-6"													#5@5		
24'-0"															

	COMPOSITE SLAB THICKNESS											
	6.5"			7.0"			7.5"			8.0"		
	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100
SPAN												
13'-0"	#4@15	#4@13	#4@10	#4@16	#4@14	#4@11	#4@17	#4@15	#4@12	#4@18	#4@16	#4@12
13'-6"	#4@14	#4@12	#4@9	#4@14	#4@13	#4@10	#4@15	#4@14	#4@11	#4@16	#4@15	#4@11
14'-0"	#4@12	#4@11	#4@8	#4@13	#4@12	#4@9	#4@14	#4@13	#4@10	#4@15	#4@14	#4@10
14'-6"	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8	#4@13	#4@12	#4@9	#4@14	#4@13	#4@10
15'-0"	#4@11	#4@10	#4@7	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8	#4@13	#4@12	#4@9
15'-6"	#4@10	#4@9	#5@11	#4@11	#4@10	#4@7	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8
16'-0"	#4@9	#4@8	#5@10	#4@10	#4@9	#4@7	#4@10	#4@9	#4@7	#4@11	#4@10	#4@8
16'-6"	#4@8	#4@8	#5@9	#4@9	#4@8	#5@10	#4@10	#4@9	#4@7	#4@10	#4@9	#4@7
17'-0"	#4@8	#4@7	#5@9	#4@8	#4@8	#5@9	#4@9	#4@8	#5@10	#4@9	#4@9	#5@11
17'-6"	#4@7	#4@7	#5@8	#4@8	#4@7	#5@9	#4@8	#4@8	#5@9	#4@9	#4@8	#5@10
18'-0"	#4@7	#5@10	#5@7	#4@7	#4@7	#5@8	#4@8	#4@7	#5@9	#4@8	#4@7	#5@9
18'-6"	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#4@7	#5@8	#4@8	#4@7	#5@9
19'-0"	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#4@7	#5@8
19'-6"	#5@9	#5@8	#5@6	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8
20'-0"	#5@9	#5@8	#5@6	#5@9	#5@8	#5@6	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7
20'-6"	#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@9	#5@9	#5@7	#5@10	#5@9	#5@7
21'-0"	#5@8	#5@7	#5@5	#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@9	#5@9	#5@7
21'-6"	#5@7	#5@7	#5@5	#5@8	#5@7	#5@5	#5@8	#5@8	#5@6	#5@9	#5@8	#5@6
22'-0"	#5@7	#5@6	#5@5	#5@7	#5@7	#5@5	#5@8	#5@7	#5@5	#5@8	#5@8	#5@6
22'-6"	#5@7	#5@6		#5@7	#5@6		#5@7	#5@7	#5@5	#5@8	#5@7	#5@5
23'-0"	#5@6	#5@5		#5@7	#5@6		#5@7	#5@7	#5@5	#5@8	#5@7	#5@5
23'-6"	#5@6	#5@5		#5@6	#5@5		#5@7	#5@6		#5@7	#5@7	#5@5
24'-0"	#5@5	#5@5		#5@6	#5@5		#5@7	#5@6		#5@7	#5@6	#5@5
24'-6"	#5@5			#5@5			#5@6	#5@5		#5@7	#5@6	
25'-0"							#5@6	#5@5		#5@6	#5@5	

(\* ) allowable superimposed dead and live loads (lb/ft<sup>2</sup>)  
Please visit our website at [www.marlynsteel.com](http://www.marlynsteel.com)