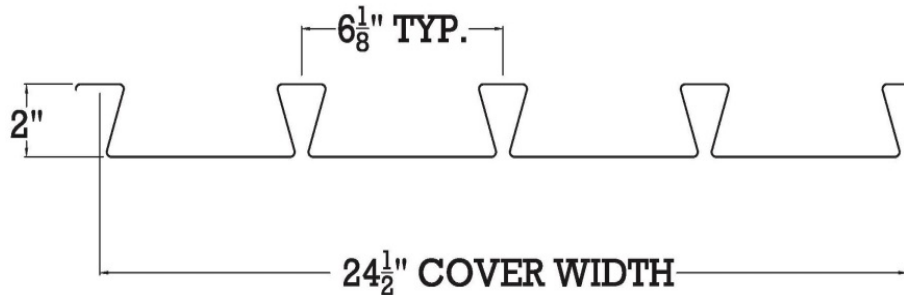


MARCORE-S COMPOSITE DECK-22 GAUGE

(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK		F _y =50 ksi
THICKNESS	in.	0.0295
WEIGHT	psf	2.3
AREA	in ²	0.66
MOMENT OF INERTIA (I _p)	in ⁴ /ft	0.40
MOMENT OF INERTIA (I _N)	in ⁴ /ft	0.26
SECTION MODULUS (S _p)	in ³ /ft	0.26
SECTION MODULUS (S _N)	in ³ /ft	0.24
MOMENT CAPACITY (M _P)	lb-in/ft	7800
MOMENT CAPACITY (M _N)	lb-in/ft	7200

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 _p)	in ³ /ft	1.4	1.7	2.0	2.2	2.5	2.8	3.1	3.4	3.7
EFFECTIVE AREA (A)	in ²	38.0	42.8	47.5	52.3	57.0	61.8	66.5	71.3	76.0
AVG/ MOMENT OF INERTIA (I _{av})	in ⁴ /ft	4.4	6.1	8.1	10.4	13.2	16.5	20.2	24.4	29.1
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	22 ga.	ft.	7.00	6.75	6.50	6.25	6.25	6.00	5.75	5.75	5.50
Double	22 ga.	ft.	7.50	7.25	7.00	6.50	6.50	6.25	6.00	6.00	5.75

*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-22 GAUGE

(WITHOUT STIFFENER RIBS)

SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, SINGLE SPAN

22 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^2											
SPAN											
9	ft.	320	400	400	400	400	400	400	400	400	400
10	ft.	223	326	400	400	400	400	400	400	400	400
11	ft.	158	235	369	391	400	400	400	400	400	400
12	ft.	114	171	284	322	360	400	400	400	400	400
13	ft.	82	126	213	248	300	332	363	394	400	400
14	ft.	58	93	161	188	252	280	306	333	359	385
15	ft.	40	68	122	144	195	238	261	283	306	328
16	ft.	27	49	92	109	151	199	223	243	262	281
17	ft.	16	34	69	83	116	156	192	209	226	242
18	ft.		22	50	62	89	122	160	181	196	210
19	ft.		12	36	45	68	95	126	157	170	182
20	ft.			24	31	50	73	99	130	148	159
21	ft.			14	20	36	55	77	103	129	139
22	ft.				11	24	40	59	80	106	121
23	ft.					14	28	43	62	83	106
24	ft.						17	30	46	65	86
25	ft.							20	33	49	67
26	ft.							10	22	35	51
27	ft.								12	24	37
28	ft.									14	25
29	ft.										15

*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-22 GAUGE

(WITHOUT STIFFENER RIBS)

SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, DOUBLE & TRIPLE SPAN

22 GAUGE

COMPOSITE DECK THICKNESS	in	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 ²								
SPAN									
16	ft.	168	164	184	204	223	243	262	281
17	ft.	145	141	159	175	192	209	226	242
18	ft.	125	122	137	152	166	181	196	210
19	ft.	109	105	119	131	144	157	170	182
20	ft.	87	91	103	114	126	137	148	159
21	ft.	69	79	90	100	109	119	129	139
22	ft.	54	65	78	87	95	104	113	121
23	ft.	41	51	68	76	83	91	98	106
24	ft.	30	39	59	66	73	79	86	92
25	ft.	21	28	47	57	63	69	75	81
26	ft.	14	20	35	49	55	60	65	70
27	ft.		12	26	42	47	52	56	61
28	ft.			17	31	41	45	49	52
29	ft.			10	22	35	38	42	45
30	ft.				14	27	32	35	38
31	ft.					19	27	30	32
32	ft.					11	22	24	26
33	ft.						15	20	21
34	ft.							15	17
35	ft.							11	12

*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-22 GAUGE

(WITHOUT STIFFENER RIBS)

TWO SPAN COMPOSITE DECK 22 GAUGE

2 SPAN CONDITION REINFORCING OVER INTERMEDIATE SUPPORT

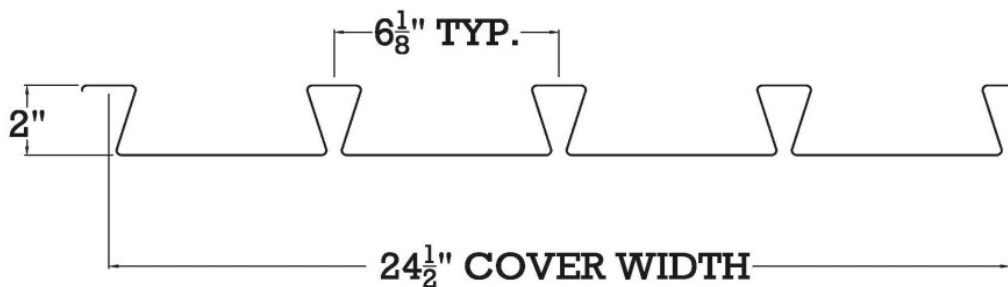
	COMPOSITE SLAB THICKNESS														
	4.0"			4.5"			5.0"			5.5"			6.0"		
	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100
SPAN															
13'-0"	#4@9	#4@8	#5@9	#4@11	#4@9	#5@10	#4@12	#4@10	#4@7	#4@13	#4@11	#4@8	#4@14	#4@12	#4@9
13'-6"	#4@8	#4@7	#5@8	#4@10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

(*) allowable superimposed dead and live loads (lb/ft²)

MARCORE-S COMPOSITE DECK-20 GAUGE

(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK Fy=50 ksi

THICKNESS	in.	0.0358
WEIGHT	psf	2.7
AREA	in ²	0.80
MOMENT OF INERTIA (I _p)	in ⁴ /ft	0.50
MOMENT OF INERTIA (I _N)	in ⁴ /ft	0.33
SECTION MODULUS (S _p)	in ³ /ft	0.33
SECTION MODULUS (S _N)	in ³ /ft	0.32
MOMENT CAPACITY (M _p)	lb-in/ft	9900
MOMENT CAPACITY (M _N)	lb-in/ft	9600

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 _p)	in ³ /ft	1.6	1.9	2.2	2.6	2.9	3.2	3.6	3.9	4.2
EFFECTIVE AREA (A)	in ²	38.0	42.8	47.5	52.3	57.0	61.8	66.5	71.3	76.0
AVG/ MOMENT OF INERTIA (I _{av})	in ⁴ /ft	4.7	6.5	8.6	11.1	14.1	17.6	21.5	25.9	30.9
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	20 ga.	ft.	8.00	7.75	7.50	7.25	7.00	6.75	6.50	6.25
Double	20 ga.	ft.	8.75	8.50	8.00	7.75	7.50	7.25	7.00	6.75

*Light Weight Concrete 110 pcf

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

MARCORE-S COMPOSITE DECK-20 GAUGE

(WITHOUT STIFFENER RIBS)

SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, SINGLE SPAN

20 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 ²											
SPAN											
9	ft.	332	400	400	400	400	400	400	400	400	400
10	ft.	232	341	400	400	400	400	400	400	400	400
11	ft.	165	246	400	400	400	400	400	400	400	400
12	ft.	119	180	299	346	400	400	400	400	400	400
13	ft.	86	132	225	261	346	400	400	400	400	400
14	ft.	61	98	170	199	266	342	375	400	400	400
15	ft.	43	72	129	152	206	269	320	348	376	400
16	ft.	29	52	98	116	160	211	270	300	324	348
17	ft.	18	36	74	88	124	166	214	260	281	302
18	ft.		24	54	66	96	130	171	217	245	263
19	ft.		14	39	49	73	102	135	174	214	230
20	ft.			27	35	55	79	107	139	176	202
21	ft.			16	23	40	60	84	111	142	177
22	ft.				13	28	44	64	87	114	144
23	ft.					17	31	48	68	91	117
24	ft.						20	35	52	71	93
25	ft.						11	23	38	55	73
26	ft.							14	26	40	57
27	ft.								16	28	42
28	ft.									18	30
29	ft.										19
30	ft.										10

*Light Weight Concrete 110 pcf

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

MARCORE-S COMPOSITE DECK-20 GAUGE

(WITHOUT STIFFENER RIBS)

SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, DOUBLE & TRIPLE SPAN 20 GAUGE

COMPOSITE DECK THICKNESS	in	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 ²								
SPAN									
16	ft.	181	193	219	245	271	296	322	348
17	ft.	156	167	190	212	234	257	279	301
18	ft.	135	145	165	184	204	223	243	262
19	ft.	117	126	143	161	178	195	212	229
20	ft.	93	110	125	141	156	171	186	201
21	ft.	74	89	110	123	137	150	164	177
22	ft.	58	70	96	108	120	132	144	156
23	ft.	45	55	81	95	106	117	127	138
24	ft.	34	42	65	84	93	103	113	122
25	ft.	24	32	51	74	82	91	99	108
26	ft.	16	22	39	59	73	80	88	95
27	ft.		15	29	47	64	70	77	84
28	ft.			21	36	53	62	68	74
29	ft.			13	26	42	54	60	65
30	ft.				18	31	47	52	57
31	ft.				10	22	37	45	49
32	ft.					15	27	39	43
33	ft.						19	32	37
34	ft.						11	23	31
35	ft.							15	26
36	ft.								18
37	ft.								10

*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-20 GAUGE

(WITHOUT STIFFENER RIBS)

TWO SPAN COMPOSITE DECK 20 GAUGE

2 SPAN CONDITION REINFORCING OVER INTERMEDIATE SUPPORT

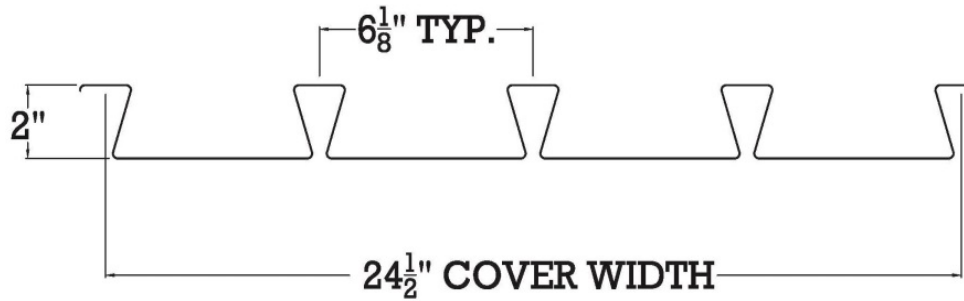
	COMPOSITE SLAB THICKNESS														
	4.0"			4.5"			5.0"			5.5"			6.0"		
	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100
SPAN															
13'-0"	#4@9	#4@8	#5@9	#4@11	#4@9	#5@10	#4@12	#4@10	#4@7	#4@13	#4@11	#4@8	#4@14	#4@12	#4@9
13'-6"	#4@8	#4@7	#5@8	#4@10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

(*) allowable superimposed dead and live loads (lb/ft²)

MARCORE-S COMPOSITE DECK-18 GAUGE

(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK F_y=40 ksi

THICKNESS	in.	0.0474
WEIGHT	psf	3.6
AREA	in ²	1.06
MOMENT OF INERTIA (I _p)	in ⁴ /ft	0.68
MOMENT OF INERTIA (I _N)	in ⁴ /ft	0.51
SECTION MODULUS (S _p)	in ³ /ft	0.45
SECTION MODULUS (S _N)	in ³ /ft	0.50
MOMENT CAPACITY (M _P)	lb-in/ft	10848
MOMENT CAPACITY (M _N)	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 _p)	in ³ /ft	2.0	2.4	2.8	3.2	3.7	4.1	4.5	5.0	5.4
EFFECTIVE AREA (A)	in ²	38.0	42.8	47.5	52.3	57.0	61.8	66.5	71.3	76.0
AVG/ MOMENT OF INERTIA (I _{av})	in ⁴ /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
Double	18 ga.	ft.	9.25	9.00	8.50	8.25	8.00	7.75	7.50	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 ²										
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
	MAXIMUM WORKING ALLOWABLE UNIFORM LIVE LOAD LL, LB/FT^2								
SPAN									
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	