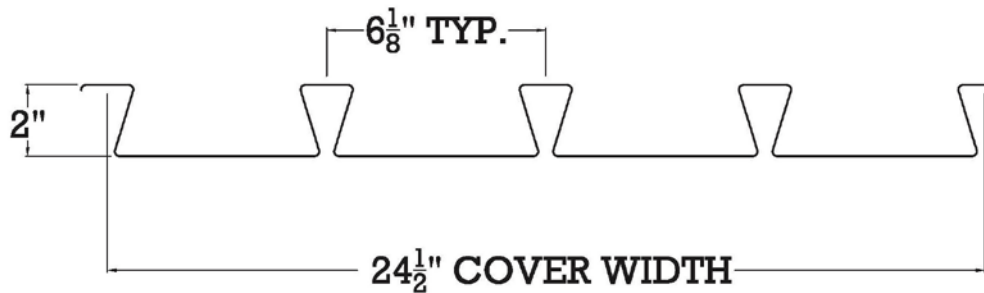


MARCORE-S COMPOSITE DECK - 22GAUGE

(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK Fy=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 - 145lb./NWC	psf	44.5	50.5	56.7	63.3	68.6	74.6	80.6	86.5	92.6
SECTION MODULUS (S _p)	in ³ /ft	1.5	1.8	2.1	2.4	2.7	3.0	3.2	3.5	3.8
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	6.2	8.5	11.4	14.8	18.8	23.5	28.9	35.1	42.0
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	5.50
Double	22 ga.	ft.	7.50	7.25	7.00	6.50	6.50	6.25	6.00	5.75

*Normal Weight Concrete 145 pcf

UNDERWRITERS LABORATORIES INC. FIRE RATED FLOOR DESIGN ASSEMBLY LIVE LOAD LIMIT FOR COMPOSITE DECK SLAB SIS 250PSF.

MARCORE-S COMPOSITE DECK - 22GAUGE

(WITHOUT STIFFENER RIBS)

SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, SIMPLE 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, psf									
SPAN											
9	ft.	309	400	400	400	400	400	400	400	400	400
10	ft.	212	314	400	400	400	400	400	400	400	400
11	ft.	148	223	358	379	400	400	400	400	400	400
12	ft.	103	159	270	311	347	400	400	400	400	400
13	ft.	71	114	199	233	288	318	348	378	400	400
14	ft.	47	80	147	173	235	266	292	317	342	367
15	ft.	30	55	108	128	178	224	246	268	289	310
16	ft.	16	36	78	94	134	181	209	227	245	263
17	ft.		21	54	67	100	138	178	193	209	225
18	ft.		10	36	46	73	104	140	165	179	192
19	ft.			21	30	51	77	107	141	153	164
20	ft.				16	34	55	80	109	131	141
21	ft.					19	37	58	82	110	121
22	ft.						22	39	60	83	103
23	ft.						10	24	41	61	84
24	ft.							11	25	42	62
25	ft.								12	26	43
26	ft.									13	27
27	ft.										13

*Normal Weight Concrete 145 pcf

UNDERWRITERS LABORATORIES INC. FIRE RATED FLOOR DESIGN ASSEMBLY LIVE LOAD LIMIT FOR COMPOSITE DECK SLAB SIS 250PSF.

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.	158	153	172	190	209	227	245	263
17	ft.	134	130	146	162	178	193	209	225
18	ft.	115	111	125	138	152	165	179	192
19	ft.	96	94	106	118	130	141	153	164
20	ft.	73	80	91	101	111	121	131	141
21	ft.	55	68	77	86	95	104	112	121
22	ft.	39	50	66	73	81	88	96	103
23	ft.	27	36	56	62	69	75	82	88
24	ft.	16	23	44	52	58	64	69	75
25	ft.		13	30	44	48	53	58	63
26	ft.			19	36	40	44	48	52
27	ft.				24	33	36	40	43
28	ft.				13	26	29	32	34
29	ft.					18	22	25	27
30	ft.						17	18	20
31	ft.						11	13	14

*Normal Weight Concrete 145 pcf

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

MARCORE-S COMPOSITE DECK-22GAUGE

(WITHOUT STIFFENER RIBS)

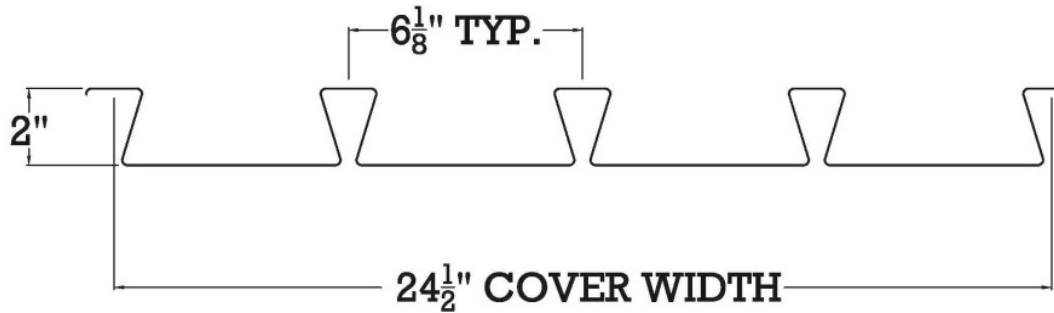
TWO SPAN COMPOSITE DECK 22 GAUGE 2 SPAN CONDITION REINFORCING OVER INTERMEDIATE SUPPORT

	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@8	#4@10	#4@9	#5@10	#4@11	#4@10	#4@7	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8
13'-6"	#4@8	#5@11	#5@7	#4@9	#4@8	#5@9	#4@10	#4@9	#5@10	#4@10	#4@9	#4@7	#4@11	#4@10	#4@8
14'-0"	#4@7	#5@10	#5@7	#4@8	#4@7	#5@8	#4@9	#4@8	#5@9	#4@10	#4@9	#5@11	#4@10	#4@9	#4@7
14'-6"	#5@10	#5@9	#5@6	#4@7	#5@10	#5@7	#4@8	#4@7	#5@9	#4@9	#4@8	#5@10	#4@9	#4@9	#5@11
15'-0"	#5@10	#5@8	#5@5	#5@11	#5@10	#5@7	#4@8	#5@11	#5@8	#4@8	#4@7	#5@9	#4@9	#4@8	#5@10
15'-6"	#5@9	#5@8	#5@5	#5@10	#5@9	#5@6	#4@7	#5@10	#5@7	#4@7	#4@7	#5@8	#4@8	#4@7	#5@9
16'-0"	#5@8	#5@7		#5@9	#5@8	#5@6	#5@10	#5@9	#5@7	#4@7	#5@10	#5@8	#4@7	#4@7	#5@8
16'-6"	#5@7	#5@6		#5@9	#5@7	#5@5	#5@10	#5@9	#5@6	#5@10	#5@9	#5@7	#4@7	#5@10	#5@8
17'-0"	#5@7	#5@6		#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7
17'-6"	#5@6			#5@7	#5@7		#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@10	#5@9	#5@7
18'-0"				#5@7	#5@6		#5@8	#5@7	#5@5	#5@8	#5@8	#5@5	#5@9	#5@8	#5@6
18'-6"				#5@6	#5@5		#5@7	#5@7		#5@8	#5@7	#5@5	#5@9	#5@8	#5@6
19'-0"				#5@6	#5@5		#5@7	#5@6		#5@7	#5@7	#5@5	#5@8	#5@7	#5@5
19'-6"				#5@5			#5@6	#5@5		#5@7	#5@6		#5@8	#5@7	#5@5
20'-0"							#5@6	#5@5		#5@7	#5@6		#5@7	#5@7	#5@5
20'-6"							#5@5	#5@5		#5@6	#5@5		#5@7	#5@6	
21'-0"							#5@5			#5@6	#5@5		#5@6	#5@6	
21'-6"										#5@5	#5@5		#5@6	#5@5	
22'-0"										#5@5			#5@5	#5@5	
22'-6"										#5@5			#5@5	#5@5	
23'-0"													#5@5		

	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@13	#4@12	#4@9	#4@14	#4@13	#4@10	#4@15	#4@13	#4@11	#4@15	#4@14	#4@11
13'-6"	#4@12	#4@11	#4@8	#4@13	#4@12	#4@9	#4@13	#4@12	#4@10	#4@14	#4@13	#4@10
14'-0"	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8	#4@12	#4@11	#4@9	#4@13	#4@12	#4@9
14'-6"	#4@10	#4@9	#4@7	#4@11	#4@10	#4@8	#4@11	#4@10	#4@8	#4@12	#4@11	#4@9
15'-0"	#4@9	#4@8	#5@11	#4@10	#4@9	#4@7	#4@10	#4@10	#4@7	#4@11	#4@10	#4@8
15'-6"	#4@9	#4@8	#5@10	#4@9	#4@8	#5@11	#4@10	#4@9	#4@7	#4@10	#4@9	#4@7
16'-0"	#4@8	#4@7	#5@9	#4@8	#4@8	#5@10	#4@9	#4@8	#5@11	#4@9	#4@9	#4@7
16'-6"	#4@7	#4@7	#5@9	#4@8	#4@7	#5@9	#4@8	#4@8	#5@10	#4@9	#4@8	#5@10
17'-0"	#4@7	#5@10	#5@8	#4@7	#4@7	#5@9	#4@8	#4@7	#5@9	#4@8	#4@7	#5@10
17'-6"	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#4@7	#5@9	#4@8	#4@7	#5@9
18'-0"	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#5@11	#5@9
18'-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
19'-0"	#5@9	#5@8	#5@5	#5@9	#5@9	#5@7	#5@10	#5@9	#5@7	#5@10	#5@10	#5@7
19'-6"	#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@9	#5@8	#5@7	#5@10	#5@9	#5@7
20'-0"	#5@8	#5@7	#5@5	#5@8	#5@7	#5@6	#5@9	#5@8	#5@6	#5@9	#5@8	#5@7
20'-6"	#5@7	#5@7		#5@8	#5@7	#5@5	#5@8	#5@8	#5@6	#5@9	#5@8	#5@6
21'-0"	#5@7	#5@6		#5@7	#5@7		#5@8	#5@7	#5@5	#5@8	#5@7	#5@6
21'-6"	#5@7	#5@6		#5@7	#5@6		#5@7	#5@7	#5@5	#5@8	#5@7	#5@5
22'-0"	#5@6	#5@5		#5@7	#5@6		#5@7	#5@7		#5@7	#5@7	#5@5
22'-6"	#5@6	#5@5		#5@6	#5@5		#5@7	#5@6		#5@7	#5@7	
23'-0"	#5@5	#5@5		#5@6	#5@5		#5@6	#5@6		#5@7	#5@6	
23'-6"	#5@5			#5@5			#5@6	#5@5		#5@6	#5@6	
24'-0"	#5@5			#5@5			#5@5	#5@5		#5@6	#5@5	
24'-6"							#5@5			#5@5	#5@5	
25'-0"										#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 - 145 lb. NWC	psf	44.5	50.5	56.7	63.3	68.6	74.6	80.6	86.5	92.6
SECTION MODULUS (S _p)	in ³ /ft	1.8	2.1	2.4	2.7	3.1	3.4	3.8	4.1	4.5
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	6.6	9.0	12.0	15.6	19.9	24.8	30.5	36.9	44.2
TEMP. REINFORC. W.W. F. 6"X6"		w1.4xw1.4	w1.4xw1.4	w1.4xw1.4	w2xw2	w2.9xw2.9	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	6.50	6.25
Double	20 ga.	ft.	8.75	8.50	8.00	7.75	7.50	7.25	7.00	6.75	6.75

*Normal Weight Concrete 145 pcf

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

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.	321	400	400	400	400	400	400	400	400	400
10	ft.	221	328	400	400	400	400	400	400	400	400
11	ft.	154	233	388	400	400	400	400	400	400	400
12	ft.	108	167	284	331	400	400	400	400	400	400
13	ft.	75	120	210	246	330	400	400	400	400	400
14	ft.	50	86	156	184	250	326	360	392	400	400
15	ft.	32	60	115	137	190	251	306	333	360	386
16	ft.	18	40	84	101	144	193	251	284	307	330
17	ft.		24	59	73	108	148	195	244	264	284
18	ft.		12	40	51	79	112	151	196	228	245
19	ft.			25	34	57	84	116	153	196	212
20	ft.			12	19	38	61	87	118	154	184
21	ft.					23	42	64	90	120	154
22	ft.					11	26	45	67	92	121
23	ft.						13	29	47	68	93
24	ft.							15	31	49	69
25	ft.								17	32	50
26	ft.									18	33
27	ft.										18

*Normal Weight Concrete 145 pcf

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

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.	170	182	207	232	256	281	305	330
17	ft.	145	155	177	198	220	241	262	283
18	ft.	124	133	152	171	189	208	226	244
19	ft.	102	114	131	147	163	180	196	212
20	ft.	79	95	113	127	141	155	170	183
21	ft.	59	73	97	110	122	135	147	159
22	ft.	44	55	84	95	106	117	128	138
23	ft.	30	40	65	82	91	101	111	120
24	ft.	19	27	49	70	79	87	96	104
25	ft.	10	16	35	56	68	75	83	90
26	ft.			23	41	58	64	71	77
27	ft.			13	29	47	55	61	66
28	ft.				18	34	46	51	56
29	ft.					22	39	43	47
30	ft.					12	27	35	39
31	ft.						16	29	32
32	ft.							19	25
33	ft.								19
34	ft.								12

*Normal Weight Concrete 145 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

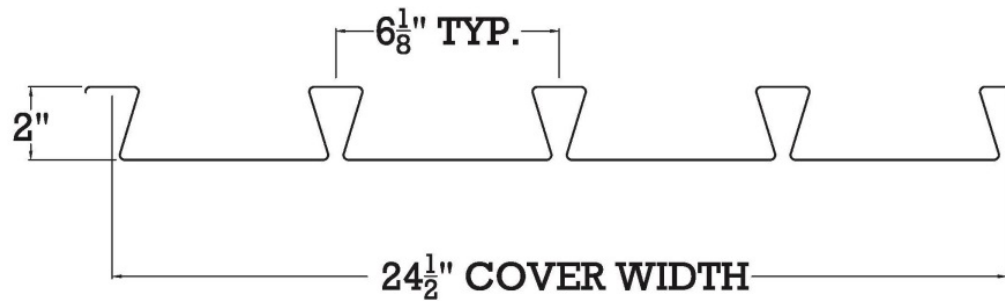
	COMPOSITE SLAB THICKNESS														
	4.0"			4.5"			5.0"			5.5"			6.0"		
	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100	25+40	25+50	5+100
SPAN															
13'-0"	#4@9	#4@8	#5@8	#4@10	#4@9	#5@10	#4@11	#4@9	#4@7	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8
13'-6"	#4@8	#5@11	#5@7	#4@9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

	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@13	#4@12	#4@9	#4@14	#4@13	#4@10	#4@14	#4@13	#4@10	#4@15	#4@14	#4@11
13'-6"	#4@12	#4@11	#4@8	#4@13	#4@12	#4@9	#4@13	#4@12	#4@10	#4@14	#4@13	#4@10
14'-0"	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8	#4@12	#4@11	#4@9	#4@13	#4@12	#4@9
14'-6"	#4@10	#4@9	#4@7	#4@11	#4@10	#4@8	#4@11	#4@10	#4@8	#4@12	#4@11	#4@9
15'-0"	#4@9	#4@8	#5@11	#4@10	#4@9	#4@7	#4@10	#4@10	#4@7	#4@11	#4@10	#4@8
15'-6"	#4@9	#4@8	#5@10	#4@9	#4@8	#5@11	#4@10	#4@9	#4@7	#4@10	#4@9	#4@7
16'-0"	#4@8	#4@7	#5@9	#4@8	#4@8	#5@10	#4@9	#4@8	#5@11	#4@9	#4@9	#4@7
16'-6"	#4@7	#4@7	#5@9	#4@8	#4@7	#5@9	#4@8	#4@8	#5@10	#4@9	#4@8	#5@10
17'-0"	#4@7	#5@10	#5@8	#4@7	#4@7	#5@9	#4@8	#4@7	#5@9	#4@8	#4@7	#5@10
17'-6"	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#4@7	#5@9	#4@8	#4@7	#5@9
18'-0"	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#5@11	#5@8
18'-6"	#5@9	#5@8	#5@7	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8
19'-0"	#5@9	#5@8	#5@6	#5@9	#5@8	#5@7	#5@10	#5@9	#5@7	#5@10	#5@10	#5@7
19'-6"	#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@9	#5@8	#5@7	#5@10	#5@9	#5@7
20'-0"	#5@8	#5@7	#5@5	#5@8	#5@7	#5@6	#5@9	#5@8	#5@6	#5@9	#5@8	#5@7
20'-6"	#5@7	#5@7	#5@5	#5@8	#5@7	#5@5	#5@8	#5@7	#5@6	#5@9	#5@8	#5@6
21'-0"	#5@7	#5@6	#5@5	#5@7	#5@7	#5@5	#5@8	#5@7	#5@5	#5@8	#5@7	#5@6
21'-6"	#5@7	#5@6	#5@5	#5@7	#5@6	#5@5	#5@7	#5@7	#5@5	#5@8	#5@7	#5@5
22'-0"	#5@6	#5@5	#5@4	#5@7	#5@6	#5@5	#5@7	#5@6	#5@5	#5@7	#5@7	#5@5
22'-6"	#5@6	#5@5		#5@6	#5@5		#5@7	#5@6	#5@5	#5@7	#5@6	#5@5
23'-0"	#5@5	#5@5		#5@6	#5@5		#5@6	#5@5	#5@4	#5@7	#5@6	#5@5
23'-6"	#5@5	#5@5		#5@5	#5@5		#5@6	#5@5		#5@6	#5@6	#5@5
24'-0"	#5@5	#5@5		#5@5	#5@5		#5@5	#5@5		#5@6	#5@5	
24'-6"	#5@5	#5@4		#5@5	#5@5		#5@5	#5@5		#5@5	#5@5	
25'-0"	#5@5			#5@5			#5@5	#5@5		#5@5	#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 - 145 lb. NWC	psf	44.5	50.5	56.7	63.3	68.6	74.6	80.6	86.5	92.6
SECTION MODULUS (S _p)	in ³ /ft	2.2	2.6	3.1	3.5	3.9	4.4	4.8	5.3	5.7
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	7.3	10.1	13.4	17.4	22.0	27.4	33.7	40.7	48.6
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 RECOMONDATION

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

*Normal Weight Concrete 145 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, SIMPLE 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.	357	400	400	400	400	400	400	400	400	400
10	ft.	247	368	400	400	400	400	400	400	400	400
11	ft.	174	263	400	400	400	400	400	400	400	400
12	ft.	123	190	321	373	400	400	400	400	400	400
13	ft.	86	138	239	279	373	400	400	400	400	400
14	ft.	59	99	179	210	284	349	383	400	400	400
15	ft.	39	71	133	158	217	286	325	354	383	400
16	ft.	24	48	99	119	166	222	278	303	328	352
17	ft.	12	31	72	88	126	172	224	261	282	303
18	ft.		18	50	63	95	132	175	225	244	262
19	ft.			33	44	70	101	137	178	211	227
20	ft.			19	28	50	75	105	140	179	198
21	ft.				15	33	54	79	108	142	172
22	ft.					19	37	58	83	111	143
23	ft.						22	40	61	85	112
24	ft.						10	25	43	63	86
25	ft.							12	27	45	64
26	ft.								14	29	46
27	ft.									16	30
28	ft.										16

*Normal Weight Concrete 145 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.	169	181	206	231	255	280	305	329
17	ft.	145	155	176	198	219	240	262	283
18	ft.	124	132	152	170	189	207	226	244
19	ft.	106	114	130	147	163	179	195	211
20	ft.	91	98	112	126	141	155	169	183
21	ft.	72	84	97	109	122	134	146	159
22	ft.	54	68	83	94	105	116	127	138
23	ft.	40	51	72	81	91	100	110	119
24	ft.	27	37	61	70	78	87	95	103
25	ft.	17	25	45	60	67	75	82	89
26	ft.		14	32	51	57	64	70	77
27	ft.			21	39	48	54	60	65
28	ft.			11	27	41	46	51	55
29	ft.				16	33	38	42	46
30	ft.					21	31	35	38
31	ft.					11	25	28	31
32	ft.						16	22	24
33	ft.							16	18
34	ft.								13
35	ft.								

*Normal Weight Concrete 145 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)

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@8	#4@7	#5@8	#4@10	#4@9	#5@10	#4@11	#4@9	#4@7	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8
13'-6"	#4@8	#5@11	#5@7	#4@9	#4@8	#5@9	#4@10	#4@9	#5@10	#4@10	#4@9	#4@7	#4@11	#4@10	#4@8
14'-0"	#5@11	#5@10	#5@7	#4@8	#4@7	#5@8	#4@9	#4@8	#5@9	#4@10	#4@9	#5@10	#4@10	#4@9	#4@7
14'-6"	#5@10	#5@9	#5@6	#4@7	#5@10	#5@7	#4@8	#4@7	#5@9	#4@9	#4@8	#5@10	#4@9	#4@8	#5@11
15'-0"	#5@9	#5@8	#5@5	#5@11	#5@9	#5@7	#4@7	#5@11	#5@8	#4@8	#4@7	#5@9	#4@9	#4@8	#5@10
15'-6"	#5@9	#5@8	#5@5	#5@10	#5@9	#5@6	#4@7	#5@10	#5@7	#4@7	#5@11	#5@8	#4@8	#4@7	#5@9
16'-0"	#5@8	#5@7		#5@9	#5@8	#5@6	#5@10	#5@9	#5@7	#4@7	#5@10	#5@7	#4@7	#4@7	#5@8
16'-6"	#5@7	#5@6		#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@10	#5@9	#5@7	#4@7	#5@10	#5@8
17'-0"	#5@7	#5@6		#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7
17'-6"	#5@6	#5@5		#5@7	#5@7		#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@10	#5@9	#5@7
18'-0"	#5@5			#5@7	#5@6		#5@8	#5@7	#5@5	#5@8	#5@8	#5@5	#5@9	#5@8	#5@6
18'-6"	#5@5			#5@6	#5@5		#5@7	#5@6	#5@5	#5@8	#5@7	#5@5	#5@9	#5@8	#5@6
19'-0"				#5@6	#5@5		#5@7	#5@6		#5@7	#5@7	#5@5	#5@8	#5@7	#5@5
19'-6"				#5@5	#5@5		#5@6	#5@5		#5@7	#5@6	#5@5	#5@8	#5@7	#5@5
20'-0"				#5@5			#5@6	#5@5		#5@7	#5@6		#5@7	#5@7	#5@5
20'-6"							#5@5	#5@5		#5@6	#5@5		#5@7	#5@6	#5@5
21'-0"							#5@5	#5@5		#5@5	#5@5		#5@6	#5@5	
21'-6"							#5@5			#5@5	#5@5		#5@6	#5@5	
22'-0"							#5@5			#5@5	#5@5		#5@5	#5@5	
22'-6"										#5@5			#5@5	#5@5	
23'-0"										#5@5			#5@5	#5@5	
23'-6"													#5@5	#5@4	
24'-0"													#5@5		

	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@13	#4@12	#4@9	#4@14	#4@13	#4@10	#4@14	#4@13	#4@10	#4@15	#4@14	#4@11
13'-6"	#4@12	#4@11	#4@8	#4@13	#4@12	#4@9	#4@13	#4@12	#4@10	#4@14	#4@13	#4@10
14'-0"	#4@11	#4@10	#4@8	#4@12	#4@11	#4@8	#4@12	#4@11	#4@9	#4@13	#4@12	#4@9
14'-6"	#4@10	#4@9	#4@7	#4@11	#4@10	#4@8	#4@11	#4@10	#4@8	#4@12	#4@11	#4@9
15'-0"	#4@9	#4@8	#5@11	#4@10	#4@9	#4@7	#4@10	#4@10	#4@7	#4@11	#4@10	#4@8
15'-6"	#4@9	#4@8	#5@10	#4@9	#4@8	#5@11	#4@10	#4@9	#4@7	#4@10	#4@9	#4@7
16'-0"	#4@8	#4@7	#5@9	#4@8	#4@8	#5@10	#4@9	#4@8	#5@11	#4@9	#4@9	#4@7
16'-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
17'-0"	#4@7	#5@10	#5@8	#4@7	#4@7	#5@9	#4@8	#4@7	#5@9	#4@8	#4@7	#5@10
17'-6"	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#4@7	#5@9	#4@8	#4@7	#5@9
18'-0"	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#5@11	#5@8
18'-6"	#5@9	#5@8	#5@7	#5@10	#5@9	#5@7	#5@10	#5@10	#5@7	#4@7	#5@10	#5@8
19'-0"	#5@9	#5@8	#5@6	#5@9	#5@8	#5@7	#5@10	#5@9	#5@7	#5@10	#5@9	#5@7
19'-6"	#5@8	#5@7	#5@5	#5@9	#5@8	#5@6	#5@9	#5@8	#5@7	#5@10	#5@9	#5@7
20'-0"	#5@8	#5@7	#5@5	#5@8	#5@7	#5@6	#5@9	#5@8	#5@6	#5@9	#5@8	#5@7
20'-6"	#5@7	#5@7	#5@5	#5@8	#5@7	#5@5	#5@8	#5@7	#5@6	#5@9	#5@8	#5@6
21'-0"	#5@7	#5@6	#5@5	#5@7	#5@7	#5@5	#5@8	#5@7	#5@5	#5@8	#5@7	#5@6
21'-6"	#5@7	#5@6	#5@5	#5@7	#5@6	#5@5	#5@7	#5@7	#5@5	#5@8	#5@7	#5@5
22'-0"	#5@6	#5@5		#5@7	#5@6		#5@7	#5@6	#5@5	#5@7	#5@7	#5@5
22'-6"	#5@6	#5@5		#5@6	#5@5		#5@7	#5@6	#5@5	#5@7	#5@6	#5@5
23'-0"	#5@5	#5@5		#5@6	#5@5		#5@6	#5@5		#5@7	#5@6	#5@5
23'-6"	#5@5	#5@5		#5@5	#5@5		#5@6	#5@5		#5@6	#5@5	#5@5
24'-0"	#5@5	#5@5		#5@5	#5@5		#5@5	#5@5		#5@6	#5@5	
24'-6"	#5@5	#5@4		#5@5	#5@5		#5@5	#5@5		#5@5	#5@5	
25'-0"	#5@4			#5@5			#5@5	#5@5		#5@5	#5@5	

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