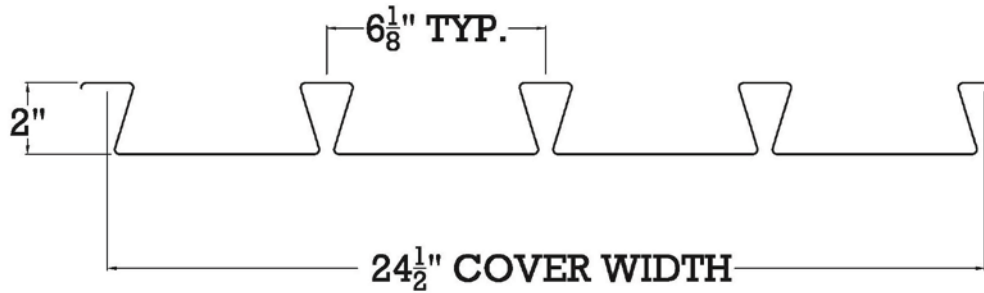


## MARCORE-S COMPOSITE DECK - 22GAUGE

(WITHOUT STIFFENER RIBS)



### SECTION PROPERTIES OF STEEL DECK Fy=50 ksi

THICKNESS	in.	0.0295
WEIGHT	psf	2.3
AREA	in <sup>2</sup>	0.66
MOMENT OF INERTIA (I <sub>p</sub> )	in <sup>4</sup> /ft	0.40
MOMENT OF INERTIA (I <sub>N</sub> )	in <sup>4</sup> /ft	0.26
SECTION MODULUS (S <sub>p</sub> )	in <sup>3</sup> /ft	0.26
SECTION MODULUS (S <sub>N</sub> )	in <sup>3</sup> /ft	0.24
MOMENT CAPACITY (M <sub>P</sub> )	lb-in/ft	7800
MOMENT CAPACITY (M <sub>N</sub> )	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 <sub>p</sub> )	in <sup>3</sup> /ft	1.5	1.8	2.1	2.4	2.7	3.0	3.2	3.5	3.8
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	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	5.75	5.50
Double	22 ga.	ft.	7.50	7.25	7.00	6.50	6.50	6.25	6.00	6.00	5.75

\*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 <sup>2</sup>									
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

SPAN	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
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		

SPAN	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
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/ft<sup>2</sup>)