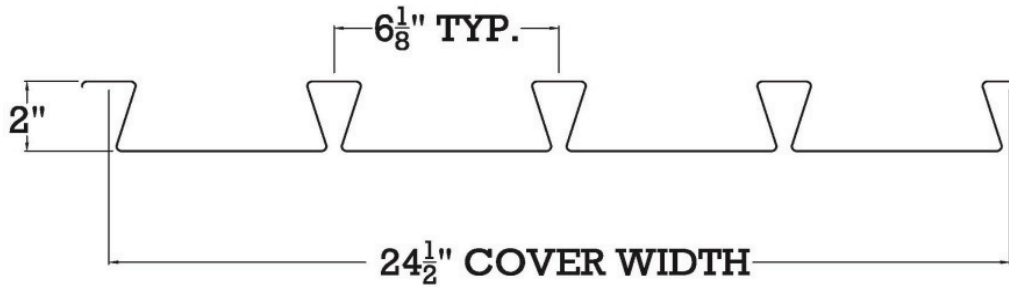


MARCORE-S COMPOSITE DECK-20 GAUGE
(WITHOUT STIFFENER RIBS)



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	6.50	6.25
Double	20 ga.	ft.	8.75	8.50	8.00	7.75	7.50	7.25	7.00	6.75	6.75

*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
SPAN	MAXIMUM WORKING ALLOWABLE UNIFORM LIVE LOAD LL, LB/FT ²										
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 LIMIT 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

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@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"															

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@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)