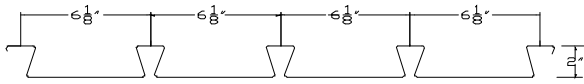


MARCORE-S COMPOSITE DECK-22 GAUGE

(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK FY=50 KSI

THICKNESS	IN.	0.0295
WEIGHT	LB/FT^2	2.2007
MOMENT OF INERTIA (Ip)	IN^4	0.4070
MOMENT OF INERTIA (In)	IN^4	0.2777
SECTION MODULUS (Sp)	IN^3	0.2991
SECTION MODULUS (Sn)	IN^3	0.02632

COMPOSITE DECK PROPERTIES

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*	LB/FT^2	33.7	38.3	42.8	48.1	52.1	56.6	61.1	65.7	70.2
SECTION MODULUS (Sp)	IN^3	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 (Iav)	IN^4	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

SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, 22 GAUGE

COMPOSITE DECK THICKNESS	IN	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
MAXIMUM WORKING ALLOWABLE UNIFORM LIVE LOAD LL, LB/FT^2										
SPAN										
9	FT	222	264	308	353	399	400	400	400	400
10	FT	175	208	243	279	316	353	391	400	400
11	FT	140	167	195	224	254	284	314	345	376
12	FT	113	135	159	182	207	232	257	282	308
13	FT	92	111	130	149	170	191	212	233	254
14	FT	76	91	108	124	141	158	176	194	212
15	FT		76	89	103	118	132	147	162	177
16	FT			74	86	98	111	124	136	149
17	FT				72	83	93	104	115	126
18	FT					69	78	88	97	107
19	FT						66	74	82	90
20	FT								69	76
21	FT									64

SHORING REQUIREMENTS

COMPOSITE DECK THICKNESS	IN	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
MAXIMUM UNSHORED SPAN	FT	6.5	6.5	6.25	6.25	6.0	6.0	5.75	5.75	5.5

*Light Weight Concrete 110#

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

**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@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	#6@10	#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	#6@10	#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	#6@9	#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	#6@10	#4@7	#5@11	#5@8	#4@8	#4@7	#5@9
17'-0"				#5@9	#5@7		#5@10	#5@9	#6@9	#4@7	#5@10	#5@7	#4@7	#5@11	#5@8
17'-6"				#5@8	#5@7		#5@9	#5@8	#6@8	#5@10	#5@9	#6@10	#4@7	#5@10	#5@7
18'-0"				#5@7			#5@9	#5@7		#5@10	#5@8	#6@9	#5@11	#5@9	#5@7
18'-6"							#5@8	#6@10		#5@9	#5@8	#6@8	#5@10	#5@9	#6@10
19'-0"							#5@7			#5@8	#5@7	#6@8	#5@9	#5@8	#6@9
19'-6"							#5@7			#5@8	#5@7		#5@9	#5@8	#6@8
20'-0"										#5@7	#6@10		#5@8	#5@7	#6@8
20'-6"										#5@7	#6@9		#5@8	#5@7	#6@7
21'-0"										#6@10			#5@7	#6@10	
21'-6"													#5@7	#6@9	
22'-0"													#6@10	#6@8	
22'-6"													#6@9		
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@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	#6@10	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8	#4@7	#4@7	#5@8
19'-6"	#5@9	#5@8	#6@9	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7	#4@7	#5@10	#5@8
20'-0"	#5@9	#5@8	#6@9	#5@10	#5@9	#6@10	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7
20'-6"	#5@8	#5@7	#6@8	#5@9	#5@8	#6@9	#5@10	#5@9	#6@10	#5@10	#5@9	#5@7
21'-0"	#5@8	#5@7	#6@8	#5@8	#5@8	#6@8	#5@9	#5@8	#6@9	#5@10	#5@9	#6@10
21'-6"	#5@7	#6@10		#5@8	#5@7		#5@8	#5@8	#6@9	#5@9	#5@8	#6@9
22'-0"	#5@7	#6@9		#5@7	#5@7		#5@8	#5@7	#6@8	#5@9	#5@8	#6@9
22'-6"	#6@10	#6@9		#5@7	#6@10		#5@8	#5@7		#5@8	#5@7	#6@8
23'-0"	#6@9	#6@8		#5@7	#6@9		#5@7	#6@10		#5@8	#5@7	#6@8
23'-6"	#6@9			#6@10			#5@7	#6@9		#5@7	#6@10	
24'-0"							#6@10	#6@9		#5@7	#6@9	
24'-6"							#6@9			#6@10	#6@9	
25'-0"										#6@9	#6@8	

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