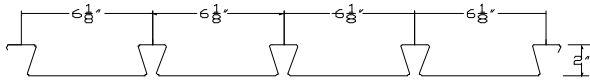


MARCORE-S COMPOSITE DECK-22 GAUGE

(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK FY=50 KSI

THICKNESS	IN.	0.0295
WEIGHT	LB/FT ²	2.2007
MOMENT OF INERTIA (I _p)	IN ⁴	0.4070
MOMENT OF INERTIA (I _n)	IN ⁴	0.2777
SECTION MODULUS (S _p)	IN ³	0.2991
SECTION MODULUS (S _n)	IN ³	0.2632

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 - 145 lb. NWC*	LB/FT ²	44.5	50.5	56.7	63.3	68.6	74.6	80.6	86.5	92.6
SECTION MODULUS (S _p)	IN ³	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	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

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/FT²										
SPAN										
9	FT	300	355	400	400	400	400	400	400	400
10	FT	236	280	325	371	400	400	400	400	400
11	FT	189	225	261	298	336	375	400	400	400
12	FT	153	182	212	243	274	306	337	370	400
13	FT	126	150	175	200	226	252	278	305	332
14	FT	103	124	144	166	187	209	231	254	276
15	FT		103	120	138	156	175	194	213	232
16	FT			100	116	131	147	163	179	195
17	FT				97	110	123	137	151	165
18	FT					92	104	115	127	139
19	FT						87	97	107	118
20	FT							82	90	99
21	FT								76	83

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	6.25	6.0	6.0	5.75	5.5	5.25	5.25	5.0	5.0

*Normal Weight Concrete 145#

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

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

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