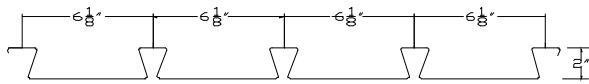


MARCORE-S COMPOSITE DECK-18 GAUGE

(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK FY=40 KSI

THICKNESS	IN.	0.0474
WEIGHT	LB/FT ²	3.4067
MOMENT OF INERTIA (I _p)	IN ⁴	0.6514
MOMENT OF INERTIA (I _n)	IN ⁴	0.5564
SECTION MODULUS (S _p)	IN ³	0.4750
SECTION MODULUS (S _n)	IN ³	0.4520

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 (S _p)	IN ³	2.0	2.4	2.8	3.2	3.7	4.1	4.5	5.0	5.4
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	5.4	7.3	9.7	12.5	15.9	19.7	24.1	29.0	34.6
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

SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, 18 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	327	390	400	400	400	400	400	400	400
10	FT	259	310	364	400	400	400	400	400	400
11	FT	209	251	295	339	386	400	400	400	400
12	FT	171	206	242	279	318	357	397	400	400
13	FT	142	171	201	232	265	298	331	365	399
14	FT		143	169	195	223	250	279	307	336
15	FT			142	165	189	212	237	261	286
16	FT					161	181	202	223	245
17	FT						155	174	192	210
18	FT							150	166	182
19	FT								143	157
20	FT									137
21	FT									

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	7.5	7.5	7.25	7.25	7.0	7.0	6.75	6.75	6.5

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

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