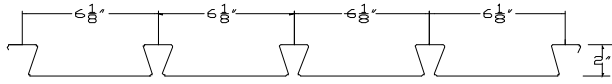


MARCORE-S COMPOSITE DECK-18 GAUGE

(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 - 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	2.2	2.6	3.1	3.5	3.9	4.4	4.8	5.3	5.7
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 (I _{av})	IN ⁴	7.3	10.1	13.4	17.4	22.0	27.4	33.7	40.7	48.6
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	356	400	400	400	400	400	400	400	400
10	FT	281	334	390	400	400	400	400	400	400
11	FT	226	269	314	360	400	400	400	400	400
12	FT	184	220	257	295	334	373	400	400	400
13	FT	152	181	212	244	276	309	342	376	400
14	FT	126	151	177	204	231	258	287	315	343
15	FT		126	148	171	194	218	241	266	290
16	FT			125	144	164	184	205	225	246
17	FT				122	139	156	174	192	210
18	FT					118	133	148	164	179
19	FT						114	127	140	154
20	FT							108	120	132
21	FT								103	113

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	7.25	7.0	7.0	6.75	6.5	6.5	6.25	6.25	6.0

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

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@14	#4@13	#4@10	#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@8	#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@8
18'-6"	#5@9	#5@8	#6@10	#5@10	#5@9	#5@7	#5@10	#5@10	#5@7	#4@7	#5@10	#5@8
19'-0"	#5@9	#5@8	#6@9	#5@9	#5@8	#6@10	#5@10	#5@9	#5@7	#5@10	#5@9	#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@8	#5@8	#5@7	#6@9	#5@9	#5@8	#6@9	#5@9	#5@8	#6@10
20'-6"	#5@7	#6@10	#6@7	#5@8	#5@7	#6@8	#5@8	#5@7	#6@9	#5@9	#5@8	#6@9
21'-0"	#5@7	#6@9	#6@7	#5@7	#6@10	#6@8	#5@8	#5@7	#6@8	#5@8	#5@7	#6@9
21'-6"	#6@10	#6@9	#6@7	#5@7	#6@9	#6@7	#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@9	#6@7	#5@7	#5@7	#6@8
22'-6"	#6@9	#6@8		#6@9	#6@8		#6@10	#6@9	#6@7	#5@7	#6@9	#6@7
23'-0"	#6@8	#6@7		#6@9	#6@8		#6@9	#6@8		#6@10	#6@9	#6@7
23'-6"	#6@8	#6@7		#6@8	#6@7		#6@9	#6@8		#6@9	#6@8	#6@7
24'-0"	#6@7	#6@7		#6@8	#6@7		#6@8	#6@8		#6@9	#6@8	
24'-6"	#6@7	#6@6		#6@7	#6@7		#6@8	#6@7		#6@8	#6@8	
25'-0"	#6@6			#6@7			#6@7	#6@7		#6@8	#6@7	