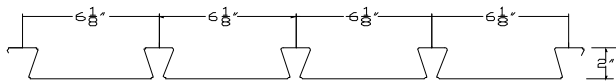


MARCORE-S COMPOSITE DECK-20 GAUGE

(WITHOUT STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK FY=50 KSI

THICKNESS	IN.	0.0358
WEIGHT	LB/FT ²	2.5774
MOMENT OF INERTIA (I _p)	IN ⁴	0.4932
MOMENT OF INERTIA (I _n)	IN ⁴	3605
SECTION MODULUS (S _p)	IN ³	0.3615
SECTION MODULUS (S _n)	IN ³	0.3261

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	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	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

SUPERIMPOSED LIVE LOAD ON COMPOSITE DECK, 20 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	328	390	400	400	400	400	400	400	400
10	FT	260	310	362	400	400	400	400	400	400
11	FT	211	251	294	337	382	400	400	400	400
12	FT	173	206	241	277	314	352	390	400	400
13	FT		171	201	230	262	293	325	357	390
14	FT			168	193	220	247	274	301	329
15	FT				164	186	209	232	256	279
16	FT						178	198	218	239
17	FT							170	188	205
18	FT								162	177
19	FT									153
20	FT									133
21	FT									116

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	7.0	7.0	6.75	6.5	6.5	6.25	6.0	6.0	6.0

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

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