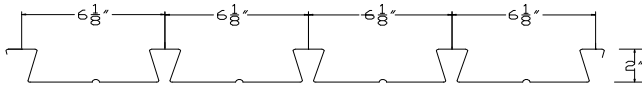


MARCORE-SR COMPOSITE DECK-20 GAUGE

(WITH STIFFENER RIBS)



SECTION PROPERTIES OF STEEL DECK FY=50 KSI

THICKNESS	IN.	0.0358
WEIGHT	LB/FT ²	2.6471
MOMENT OF INERTIA (I _p)	IN ⁴	0.4864
MOMENT OF INERTIA (I _n)	IN ⁴	0.4795
SECTION MODULUS (S _p)	IN ³	0.3569
SECTION MODULUS (S _n)	IN ³	0.3554

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	44.3	50.3	56.3	62.2	68.5	74.5	80.4	86.4	91.4
SECTION MODULUS (S _p)	IN ³	1.8	2.1	2.5	2.8	3.1	3.5	3.8	4.2	4.6
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	6.6	9.1	12.1	15.8	20.1	25.0	30.7	37.2	44.6
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, 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	358	400	400	400	400	400	400	400	400
10	FT	283	336	391	400	400	400	400	400	400
11	FT	228	271	315	361	400	400	400	400	400
12	FT	186	221	258	295	333	372	400	400	400
13	FT	153	183	213	244	276	308	341	374	400
14	FT		152	178	204	231	258	285	313	341
15	FT			149	171	194	217	240	264	288
16	FT				145	164	184	204	224	245
17	FT					139	156	173	191	209
18	FT						133	148	163	179
19	FT							126	139	153
20	FT								119	131
21	FT									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	6.5	6.25	6.25	6.0	6.0	5.75	5.75	5.5	5.5

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

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

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