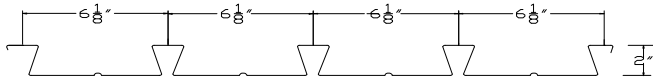


## MARCORE-SR COMPOSITE DECK-20 GAUGE

(WITH STIFFENER RIBS)



**SECTION PROPERTIES OF STEEL DECK**    FY=50 KSI

THICKNESS	IN.	0.0358
WEIGHT	LB/FT <sup>2</sup>	2.6471
MOMENT OF INERTIA (I <sub>p</sub> )	IN <sup>4</sup>	0.4864
MOMENT OF INERTIA (I <sub>n</sub> )	IN <sup>4</sup>	0.4795
SECTION MODULUS (S <sub>p</sub> )	IN <sup>3</sup>	0.3569
SECTION MODULUS (S <sub>n</sub> )	IN <sup>3</sup>	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 - 110 lb. LWC*	LB/FT <sup>2</sup>	33.6	38.2	42.7	47.2	51.9	56.5	61.0	65.5	69.3
SECTION MODULUS (S <sub>p</sub> )	IN <sup>3</sup>	1.7	2.0	2.3	2.6	2.9	3.3	3.6	4.0	4.3
EFFECTIVE AREA (A)	IN <sup>2</sup>	38.0	42.8	47.5	52.3	57.0	61.8	66.5	71.3	76.0
AVG/ MOMENT OF INERTIA (I <sub>av</sub> )	IN <sup>4</sup>	4.8	6.5	8.7	11.2	14.2	17.7	21.7	26.2	31.2
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
<b>MAXIMUM WORKING ALLOWABLE UNIFORM LIVE LOAD LL, LB/FT<sup>2</sup></b>										
SPAN										
9	FT	334	398	400	400	400	400	400	400	400
10	FT	265	317	370	400	400	400	400	400	400
11	FT	214	256	300	345	391	400	400	400	400
12	FT	176	210	247	284	322	360	400	400	400
13	FT		175	205	236	268	301	333	367	400
14	FT			172	199	226	253	281	309	338
15	FT				168	191	215	239	263	287
16	FT						183	204	225	246
17	FT							175	193	212
18	FT								167	183
19	FT									159
20	FT									
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	7.0	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@8	#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@10	#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@11	#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@8	#4@8	#5@9
16'-6"	#5@8	#6@10		#5@9	#5@8	#6@9	#5@11	#5@9	#6@10	#4@7	#5@11	#5@8	#4@8	#4@7	#5@8
17'-0"	#5@7			#5@9	#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@10	#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@9		#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"													#6@8		
23'-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@15	#4@13	#4@10	#4@16	#4@14	#4@11	#4@17	#4@15	#4@12	#4@18	#4@16	#4@13
13'-6"	#4@14	#4@12	#4@9	#4@15	#4@13	#4@10	#4@15	#4@14	#4@11	#4@16	#4@15	#4@11
14'-0"	#4@13	#4@11	#4@8	#4@13	#4@12	#4@9	#4@14	#4@13	#4@10	#4@15	#4@14	#4@11
14'-6"	#4@12	#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	#4@7	#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@10	#4@9	#4@7
17'-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
18'-0"	#4@7	#5@10	#5@8	#4@7	#4@7	#5@8	#4@8	#4@7	#5@9	#4@8	#4@8	#5@10
18'-6"	#5@11	#5@10	#5@7	#4@7	#5@10	#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@9	#6@9	#5@10	#5@9	#5@7	#5@11	#5@10	#5@7
20'-6"	#5@8	#5@7	#6@9	#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@9	#5@8	#5@8		#5@9	#5@8	#6@9	#5@10	#5@9	#6@10
21'-6"	#5@7	#6@10	#6@9	#5@8	#5@7		#5@8	#5@8	#6@9	#5@9	#5@8	#6@9
22'-0"	#5@7	#6@9	#6@7	#5@7	#5@7		#5@8	#5@7	#6@8	#5@9	#5@8	#6@9
22'-6"	#6@10	#6@9		#5@7	#6@10		#5@8	#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@10	#6@9		#5@7	#6@9		#5@7	#6@10	#6@7
24'-0"	#6@8			#6@9			#6@10	#6@9		#5@7	#6@9	#6@7
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/ft<sup>2</sup>)