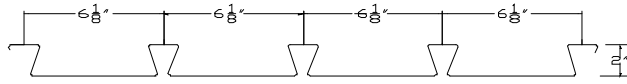


MARCORE-S COMPOSITE DECK-20 GAUGE (WITHOUT STIFFENER RIBS)



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	0.3767
SECTION MODULUS (S _p)	IN ³	0.3615
SECTION MODULUS (S _n)	IN ³	0.3313

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	1.8	2.1	2.4	2.7	3.1	3.4	3.8	4.1	4.5
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	9.0	12.0	15.6	19.9	24.8	30.5	36.9	44.2
TEMP. REINFORC. W.W. F. 6"X6"		w1.4xw1.4	w1.4xw1.4	w1.4xw1.4	w2xw2	w2.9xw2.9	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	351	400	400	400	400	400	400	400	400
10	FT	277	328	381	400	400	400	400	400	400
11	FT	223	265	308	352	396	400	400	400	400
12	FT	182	216	251	288	324	362	400	400	400
13	FT	150	178	208	238	269	300	331	363	395
14	FT		148	173	198	224	251	277	304	331
15	FT			145	167	188	211	233	256	279
16	FT			122	141	159	178	198	217	237
17	FT				119	135	151	168	185	201
18	FT					115	129	143	158	172
19	FT						110	122	135	147
20	FT							104	115	126
21	FT								98	107

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 25

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

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