



BETCO®

2-IN COMPOSITE DECK TECHNICAL SHEET

2" COMPOSITE STEEL DECK (50 ksi) SECTION PROPERTIES (PER FOOT OF WIDTH)

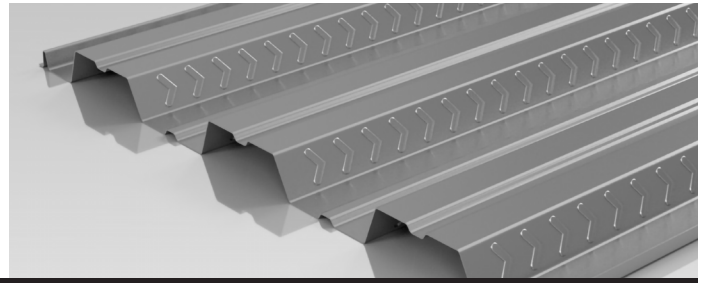
Base Steel Thickness	Weight (psf)	Area of Steel Deck		Section Modulus (in ³ /ft)		Deflection Moment of Inertia (in ⁴ /ft)	
		M _p /Ω	M _r /Ω	S _{e+}	S _{e-}	I _{d+}	I _{d-}
		(in-lbs/ft)	(in-lbs/ft)				
22GA (0.0295")	1.6	7,105	7,311	0.237	0.244	0.294	0.292
20GA (0.0358")	1.9	9,481	9,701	0.317	0.324	0.371	0.367
18GA (0.0474")	2.5	14,102	14,351	0.471	0.479	0.513	0.509
16GA (0.0598")	3.2	18,633	18,822	0.622	0.629	0.662	0.658

2" COMPOSITE SLAB DATA (PER FOOT OF WIDTH)

Overall Slab Depth (in)					
4	4 1/2	5	5 1/2	6	6 1/2
Slab Weight - Normal Weight Concrete (psf)					
39	45	51	57	63	69
Slab Weight - Light Weight Concrete (psf)					
31	35	39	44	48	53
Concrete Volume (yd ³ /100ft ²)					
0.93	1.08	1.23	1.39	1.54	1.70

Total Slab Depth (Concrete Topping Depth)	Deck Type	Maximum Unshored Deck Span			2" COMPOSITE ALLOWABLE SUPERIMPOSED LOAD (PSF) (Normal Weight Concrete [145 pcf])														
		1-SPAN	2-SPAN	3-SPAN	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"
4 in (t=2 in)	22ga	7'-10"	9'-1"	9'-3"	285	246	213	186	164	145	128	114	102	92	82	74	67	60	55
	20ga	9'-5"	10'-6"	10'-10"	345	298	259	227	200	177	158	141	127	114	103	93	84	77	70
	18ga	10'-6"	12'-9"	13'-2"	400	391	341	300	265	235	210	189	170	154	139	127	115	105	96
	16ga	11'-5"	14'-7"	15'-1"	400	400	400	373	331	294	264	237	214	194	176	161	147	135	124
4 1/2 in (t=2 1/2 in)	22ga	7'-5"	8'-8"	8'-10"	347	299	260	227	200	177	157	140	125	112	101	91	82	74	67
	20ga	9'-0"	10'-0"	10'-4"	400	362	315	276	244	216	193	172	155	139	126	114	103	94	86
	18ga	10'-0"	12'-2"	12'-6"	400	400	400	364	322	286	256	230	207	187	170	154	141	129	118
	16ga	10'-11"	13'-11"	14'-4"	400	400	400	400	400	358	320	288	260	236	215	196	179	164	151
5 in (t=3 in)	22ga	7'-2"	8'-3"	8'-5"	400	355	308	270	237	210	187	167	149	134	121	109	99	89	81
	20ga	8'-8"	10'-4"	10'-9"	400	400	374	328	289	257	229	205	184	166	150	136	124	112	102
	18ga	9'-7"	11'-7"	12'-0"	400	400	400	400	382	340	304	273	246	223	202	184	168	154	141
	16ga	10'-5"	13'-4"	13'-9"	400	400	400	400	400	400	380	342	309	281	255	233	213	196	180
5 1/2 in (t=3 1/2)	22ga	6'-10"	7'-11"	8'-1"	400	400	358	313	276	244	217	194	174	156	141	127	115	105	95
	20ga	8'-3"	9'-2"	9'-6"	400	400	400	381	336	299	266	239	214	193	175	159	144	131	120
	18ga	9'-3"	11'-2"	11'-6"	400	400	400	400	400	395	354	318	287	259	236	215	196	179	164
	16ga	10'-1"	12'-9"	13'-2"	400	400	400	400	400	400	400	399	360	327	298	272	249	228	210
6 in (t=4 in)	22ga	6'-7"	7'-8"	7'-9"	400	400	400	358	316	280	249	222	199	179	162	146	133	120	109
	20ga	7'-11"	8'-10"	9'-1"	400	400	400	400	385	342	305	273	246	222	201	182	166	151	138
	18ga	8'-11"	10'-9"	11'-1"	400	400	400	400	400	400	400	364	328	297	270	246	225	206	189
	16ga	9'-9"	12'-4"	12'-9"	400	400	400	400	400	400	400	400	400	375	341	312	285	262	241
6 1/2 in (t=4 1/2 in)	22ga	6'-5"	7'-5"	7'-6"	400	400	400	400	356	315	281	251	225	203	183	166	150	136	124
	20ga	7'-8"	8'-6"	8'-10"	400	400	400	400	400	385	344	308	277	250	227	206	187	171	156
	18ga	8'-8"	10'-4"	10'-9"	400	400	400	400	400	400	400	400	371	336	305	278	254	233	214
	16ga	9'-5"	11'-10"	12'-3"	400	400	400	400	400	400	400	400	400	400	386	352	323	296	273

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Total Slab Depth (Concrete Topping Depth)	Deck Type	Maximum Unshored Deck Span			2" COMPOSITE ALLOWABLE SUPERIMPOSED LOAD (PSF) (Light Weight Concrete [115 pcf])															
		1-SPAN	2-SPAN	3-SPAN	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	
4 in (t=2 in)	22ga	8'-5"	9'-9"	10'-0"	277	239	208	182	161	143	127	113	102	92	83	75	68	62	56	
	20ga	10'-2"	11'-3"	11'-8"	334	289	252	221	195	173	155	139	125	113	102	93	84	77	70	
	18ga	11'-4"	13'-8"	14'-2"	400	377	329	289	256	228	204	183	166	150	136	124	114	104	95	
	16ga	12'-4"	15'-8"	16'-3"	400	400	400	358	318	283	254	229	207	188	171	156	143	131	121	
4 1/2 in (t=2 1/2 in)	22ga	8'-1"	9'-5"	9'-7"	339	292	255	223	197	175	156	139	125	113	102	92	84	76	70	
	20ga	9'-9"	10'-10"	11'-2"	400	352	307	270	239	212	189	170	153	138	125	114	104	95	87	
	18ga	10'-10"	13'-2"	13'-8"	400	400	400	352	312	278	249	224	202	183	167	152	139	128	117	
	16ga	11'-10"	15'-1"	15'-7"	400	400	400	400	387	345	309	279	252	229	209	191	175	161	148	
5 in (t=3 in)	22ga	7'-10"	9'-1"	9'-3"	400	348	303	266	235	209	186	167	150	135	122	111	101	92	84	
	20ga	9'-6"	11'-5"	11'-10"	400	400	366	321	284	253	226	203	183	165	150	137	125	114	104	
	18ga	10'-6"	12'-9"	13'-2"	400	400	400	400	372	331	297	267	241	219	199	182	166	153	140	
	16ga	11'-5"	14'-7"	15'-1"	400	400	400	400	400	400	369	332	301	273	249	228	209	192	177	
5 1/2 in (t=3 1/2)	22ga	7'-6"	8'-9"	8'-11"	400	400	353	310	273	243	217	194	175	158	143	130	118	108	98	
	20ga	9'-0"	10'-1"	10'-5"	400	400	400	374	331	294	263	236	213	193	175	159	145	133	122	
	18ga	10'-1"	12'-3"	12'-8"	400	400	400	400	400	386	346	311	281	255	232	212	194	178	164	
	16ga	11'-0"	14'-0"	14'-6"	400	400	400	400	400	400	400	387	351	319	291	266	244	224	207	
6 in (t=4 in)	22ga	7'-3"	8'-6"	8'-7"	400	400	400	355	314	279	249	223	201	181	164	149	136	124	113	
	20ga	8'-9"	9'-9"	10'-1"	400	400	400	400	379	338	302	271	245	222	201	183	168	153	141	
	18ga	9'-9"	11'-10"	12'-3"	400	400	400	400	400	400	397	357	323	293	267	244	224	205	189	
	16ga	10'-8"	13'-7"	14'-0"	400	400	400	400	400	400	400	400	400	367	334	306	281	258	238	
6 1/2 in (t=4 1/2 in)	22ga	7'-0"	8'-2"	8'-4"	400	400	400	400	354	314	281	252	227	205	186	169	154	140	128	
	20ga	8'-5"	9'-5"	9'-9"	400	400	400	400	400	381	341	307	277	251	228	207	189	173	159	
	18ga	9'-6"	11'-5"	11'-10"	400	400	400	400	400	400	400	400	365	332	302	276	253	232	214	
	16ga	10'-4"	13'-1"	13'-7"	400	400	400	400	400	400	400	400	400	400	378	346	318	293	270	



ICC EVALUATION
SERVICE®

1. All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, ANSI/SDI SD-2022, AISI S100-2012 and AISI S100-2016.
2. Loads shown in tables are uniformly distributed superimposed loads in psf. Span length assumes center-to-center spacing of supports. Tabulated loads shall not be increased by assuming clear span dimensions.
3. Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.



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