

## 1.5 B-DECK G40





## **SECTION PROPERTIES (Per Foot of Width)**

				Sec. M Midspan	odulus   Support	Deflection Moment of Inertia	Web Cripp	ling Loads	Web Crippling Data						
Base Steel Thickness (in.)	GAGE	Yield Stress (ksi)	Weight G90 (psf)	S <sub>pos</sub> (in³)	S <sub>neg</sub> (in <sup>3</sup> )	L <sub>xd</sub> (in⁴)	N = 1.5" P <sub>e</sub> (lb)	N = 3" P <sub>i</sub> (lb)	P <sub>e1</sub> End (lb)	P <sub>e2</sub> End (lb)	P <sub>ii</sub> Interior (lb)	P <sub>i2</sub> Interior (lb)			
0.0239	24	40	1.36	0.134	0.138	0.123	436	756	146	36.6	260	44.3			
0.0295	22	40	1.66	0.171	0.181	0.161	643	1131	231	57.7	417	70.9			
0.0358	20	40	2.01	0.212	0.225	0.205	917	1633	350	87.6	639	109			

## **ALLOWABLE UNIFORMLY DISTRIBUTED LOADS (psf)**

	Lenght	MAX CO. CANTILEVER SPAN (ff-in.)	5.0		5.5		6.0		6.5		7.0		7.5		8.0		8.5		9.0		9.5		10.0	
(	(ft.)		S	D	S	D	S	D	S	D	S	D	s	D	S	D	S	D	S	D	S	D	S	D
s (in.)	24	5' 4"	86	64	71	48	60	37	51	29	44	23	38	19	34	16	30	13	26	11	24	9	21	8
SPAN	22	6' 10"	109	85	90	64	76	49	65	38	56	31	49	25	43	21	38	17	34	14	30	12	27	11
1- SPAN Steel Thickness (in.)	20	8' 5"	135	107	112	81	94	62	80	49	69	39	60	32	53	26	47	22	42	18	37	16	34	13
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<u>(</u>	24	6' 7"	88	153	73	115	61	89	52	70	45	56	39	45	34	37	31	31	27	26	24	22	22	19
2- SPAN el Thickness (in.)	22	8' 5"	115	201	95	151	80	116	68	92	59	73	51	60	45	49	40	41	36	35	32	29	29	25
2- SPAN teel Thickn	20	10' 4"	144	256	119	192	100	148	85	116	73	93	64	76	56	62	50	52	44	44	40	37	36	32
Bas Ste																								
s (in.)	24	6' 8"	110	122	91	91	77	70	65	55	56	44	49	36	43	30	38	25	34	21	31	18	28	15
3- SPAN el Thickness (in.)	22	8' 6"	144	159	119	120	100	92	85	73	74	58	64	47	56	39	50	32	45	27	40	23	36	20
3-S Steel Th	20	10' 6"	180	202	149	152	125	117	106	92	92	74	80	60	70	49	62	41	55	35	50	30	45	25
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- Based on ASTM A 653 structural steel.
- Values in row "S" are based on strength.
- Values in row "D" are based on deflection of SPAN LENGTH/240.
- 4 Pe = Allowable end web crippling load based on N = 1.5 in.
- 5 Pi = Allowable interior web crippling load based on N = 3.0 in.
- 6 Web crippling not included in strength calculations. See Example.
  7 If bearing lengths are less than specified, see Example for use of web crippling data.
- 8 MAX CO. SPAN = Maximum construction span based on 200 lb concentrated load per foot of deck (ANSI/SDI RD-2017).
- 9 CANTIL. SPAN = Maximum construction cantilever span based on Eq. 2.4.3 of (ANSI/SDI RD-2017).
- 10 Allowable Strength Design (ASD) principles were used in accordance with AISI S100-16. Prepared by Dr. R.M. Schuster, P.E., Distinguished Professor Emeritus, University of Waterloo.

GAGE	CANTILEVER SPAN
24	1' 3"
22	1' 8"
20	2' 1"