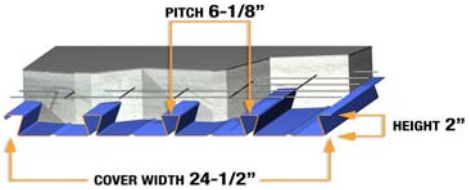
Metal Dek Group®
a unit of CSi®

VERSA-DEK® LS FLOOR (ASD)

2" high x 6-1/8" pitch x 24-1/2" wide



SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	I_D	Sp	Sn	Rbe			Rbi		
					2"	3"	4"	4"	5"	6"
22	2.23	0.407	0.288	0.281	949	1093	1214	1861	2006	2138
20	2.71	0.495	0.361	0.347	1351	1549	1716	2641	2842	3023
18	3.58	0.658	0.483	0.484	2251	2564	2827	4385	4701	4986
16	4.51	0.832	0.614	0.617	3431	3887	4271	6670	7128	7542

MAXIMUM SUPERIMPOSED ASD LOADS, (psf), NO STUDS ON BEAMS

h (Wc)		4 (33.7)				4.25 (36.0)				4.5 (38.3)				4.75 (40.5)			
Span	Load Combinations	GAGE															
		22	20	18	16	22	20	18	16	22	20	18	16	22	20	18	16
8'-0"	D+L (Strength)	305	320	369	398	330	346	399	400	355	371	400	400	379	397	400	400
	D+L (Deflection)	305	320	369	398	330	346	399	400	355	371	400	400	379	397	400	400
	L (Deflection)	305	320	369	398	330	346	399	400	355	371	400	400	379	397	400	400
9'-0"	D+L (Strength)	269	282	271	354	291	304	284	382	312	327	295	400	334	350	379	400
	D+L (Deflection)	269	282	271	354	291	304	284	382	312	327	295	400	334	350	379	400
	L (Deflection)	269	282	271	354	291	304	284	382	312	327	295	400	334	350	379	400
10'-0"	D+L (Strength)	232	249	272	269	254	272	294	282	275	292	316	294	296	312	339	304
	D+L (Deflection)	232	249	272	269	254	272	294	282	275	292	316	294	296	312	339	304
	L (Deflection)	201	217	244	269	237	255	287	282	275	292	316	294	296	312	339	304
11'-0"	D+L (Strength)	184	198	218	236	203	222	245	264	220	248	273	294	237	275	303	326
	D+L (Deflection)	184	198	218	236	203	222	245	264	220	248	273	294	237	275	303	326
	L (Deflection)	151	163	183	202	178	192	215	237	208	224	251	276	237	259	290	320
12'-0"	D+L (Strength)	148	159	176	190	165	179	198	213	179	200	221	238	192	223	246	265
	D+L (Deflection)	138	152	174	190	165	179	198	213	179	200	221	238	192	223	246	265
	L (Deflection)	116	126	141	156	137	148	166	183	160	173	193	213	185	200	224	246
13'-0"	D+L (Strength)	119	129	143	155	135	145	161	174	146	163	180	195	158	182	201	217
	D+L (Deflection)	101	112	129	145	123	136	156	174	146	163	180	195	158	182	201	217
	L (Deflection)	91	99	111	122	108	116	130	144	126	136	152	167	146	157	176	194
14'-0"	D+L (Strength)	97	105	117	127	109	119	132	143	120	133	148	161	130	149	166	179
	D+L (Deflection)	74	82	96	109	91	101	117	132	110	122	141	158	130	145	166	179
	L (Deflection)	73	79	89	98	86	93	104	115	101	109	122	134	117	126	141	155
15'-0"	D+L (Strength)	78	85	96	105	89	97	109	118	100	110	123	133	108	123	137	149
	D+L (Deflection)	53	60	71	81	67	75	88	100	82	91	107	121	99	110	128	144
	L (Deflection)	53	60	71	80	67	75	85	94	82	88	99	109	95	102	115	126
16'-0"	D+L (Strength)	63	70	79	86	73	80	90	98	83	90	101	111	90	102	114	124
	D+L (Deflection)	38	43	52	60	48	55	65	75	61	68	80	92	74	83	97	111
	L (Deflection)	38	43	52	60	48	55	65	75	61	68	80	90	74	83	94	104
17'-0"	D+L (Strength)	51	56	64	71	59	65	74	81	67	74	84	92	57	84	95	104
	D+L (Deflection)	25	30	37	44	34	39	48	56	44	50	60	69	55	62	74	85
	L (Deflection)	25	30	37	44	34	39	48	56	44	50	60	69	55	62	74	85
18'-0"	D+L (Strength)	34	45	52	58	38	53	60	67	42	61	69	76	45	69	78	86
	D+L (Deflection)	16	19	25	31	23	27	34	41	31	36	44	52	40	45	55	64
	L (Deflection)	16	19	25	31	23	27	34	41	31	36	44	52	40	45	55	64
19'-0"	D+L (Strength)	27	36	42	47	30	42	49	55	33	49	57	63	36	51	65	72
	D+L (Deflection)	8	11	16	21	13	17	23	29	20	24	31	38	27	32	40	48
	L (Deflection)	8	11	16	21	13	17	23	29	20	24	31	38	27	32	40	48
20'-0"	D+L (Strength)	20	31	34	38	23	34	40	44	25	38	46	52	28	42	53	59
	D+L (Deflection)	2	4	8	12	6	9	14	19	11	15	21	26	17	21	28	35
	L (Deflection)	2	4	8	12	6	9	14	19	11	15	21	26	17	21	28	35

MAXIMUM UNSHORED CONSTRUCTION CLEAR SPANS

1span	6'-11"	7'-11"	9'-5"	10'-10"	6'-9"	7'-9"	9'-3"	10'-7"	6'-7"	7'-7"	9'-0"	10'-4"	6'-5"	7'-5"	8'-10"	10'-2"
2span	8'-11"	9'-10"	11'-7"	13'-0"	8'-9"	9'-8"	11'-4"	12'-9"	8'-7"	9'-6"	11'-2"	12'-6"	8'-5"	9'-4"	10'-11"	12'-3"
3span	9'-2"	10'-2"	12'-0"	13'-5"	9'-0"	10'-0"	11'-9"	13'-2"	8'-10"	9'-10"	11'-6"	12'-11"	8'-8"	9'-7"	11'-4"	12'-8"
cantilever	2'-9"	3'-3"	4'-2"	5'-0"	2'-9"	3'-3"	4'-2"	4'-11"	2'-8"	3'-2"	4'-1"	4'-10"	2'-8"	3'-2"	4'-0"	4'-9"
cy/100sf	1.13				1.21				1.29				1.37			

8'-0"	D+L (Strength)	305	**Max. superimposed ASD dead + live load (psf) (governed by strength limitation)**
	D+L (Deflection)	305	**Max. superimposed ASD dead + live load (psf) (governed by deflection limitation of L/240)**
	L (Deflection)	305	**Max. superimposed ASD live load (psf) (governed by deflection limitation of L/360)**
▲			**Vertical load span (center to center spacing)**

Wd	Weight of deck (uncoated), psf	h	Total height of concrete slab, in
I_D	Moment of inertia for deflection per foot of deck width (in^4)/ft	Wc	Weight of concrete (neglecting deflection), psf
Sp	Section modulus for positive bending per foot of deck width, (in^3)/ft	f'c	3000 psi
Sn	Section modulus for negative bending per foot of deck width, (in^3)/ft	D	Uniform dead load, psf
Rbe	Allowable exterior web crippling value per foot of deck, plf	L	Uniform live load, psf
Rbi	Allowable interior web crippling value per foot of deck, plf		

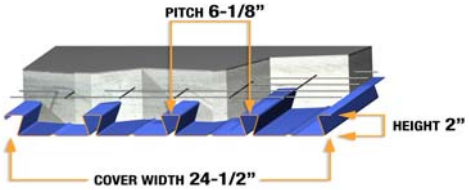
If welded wire fabric is not supplied per ACI requirements (0.00075*Ac), reduce loads by 10%. The section property table is based on 2001 AISI's Cold-Formed Steel Design Manual, 2004 Supplement. The live loads and unshored construction clear spans are based on the Steel Deck Institute's Composite Deck Design Handbook, March 1997 and Design Manual, Pub. No. 30, and ASCE's Standard for the Structural Design of Composite Slabs. The loads in these tables are based on a Simple Span Design Analysis.

110 PCF LIGHTWEIGHT CONCRETE TABLE

Metal Deck Group®
a unit of CSi®

VERSA-DEK® LS FLOOR (ASD)

2" high x 6-1/8" pitch x 24-1/2" wide



SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	I_D	Sp	Sn	Rbe			Rbi		
					2"	3"	4"	4"	5"	6"
22	2.23	0.407	0.288	0.281	949	1093	1214	1861	2006	2138
20	2.71	0.495	0.361	0.347	1351	1549	1716	2641	2842	3023
18	3.58	0.658	0.483	0.484	2251	2564	2827	4385	4701	4986
16	4.51	0.832	0.614	0.617	3431	3887	4271	6670	7128	7542

MAXIMUM SUPERIMPOSED ASD LOADS, (psf), NO STUDS ON BEAMS

	h (Wc)	5 (42.8)				5.25 (45.1)				5.5 (47.4)				5.75 (49.7)			
Span	Load Combinations	GAGE															
		22	20	18	16	22	20	18	16	22	20	18	16	22	20	18	16
8'-0"	D+L (Strength)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	D+L (Deflection)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	L (Deflection)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
9'-0"	D+L (Strength)	356	373	400	400	377	396	400	400	399	400	400	400	400	400	400	400
	D+L (Deflection)	356	373	400	400	377	396	400	400	399	400	400	400	400	400	400	400
	L (Deflection)	356	373	400	400	377	396	400	400	399	400	400	400	400	400	400	400
10'-0"	D+L (Strength)	317	333	361	391	337	353	383	400	356	374	400	400	376	394	400	400
	D+L (Deflection)	317	333	361	391	337	353	383	400	356	374	400	400	376	394	400	400
	L (Deflection)	317	333	361	391	337	353	383	400	356	374	400	400	376	394	400	400
11'-0"	D+L (Strength)	254	300	325	352	271	318	345	374	288	337	366	396	305	355	386	400
	D+L (Deflection)	254	300	325	352	271	318	345	374	288	337	366	396	305	355	386	400
	L (Deflection)	254	298	325	352	271	318	345	374	288	337	366	396	305	355	386	400
12'-0"	D+L (Strength)	206	246	272	293	220	269	299	322	234	287	328	353	248	304	351	380
	D+L (Deflection)	206	246	272	293	220	269	299	322	234	287	328	353	248	304	351	380
	L (Deflection)	206	230	257	283	220	262	293	322	234	287	328	353	248	304	351	380
13'-0"	D+L (Strength)	169	202	223	240	180	222	246	265	192	237	270	291	203	251	295	318
	D+L (Deflection)	169	202	223	240	180	222	246	265	192	237	270	291	203	251	295	318
	L (Deflection)	168	181	202	222	180	206	231	254	192	234	262	288	203	251	295	318
14'-0"	D+L (Strength)	140	166	184	199	149	183	203	220	159	197	224	242	168	209	245	265
	D+L (Deflection)	140	166	184	199	149	183	203	220	159	197	224	242	168	209	245	265
	L (Deflection)	134	145	162	178	149	165	185	203	159	188	210	230	168	209	237	260
15'-0"	D+L (Strength)	116	137	153	166	124	152	169	184	132	165	187	202	140	176	205	222
	D+L (Deflection)	116	131	151	166	124	152	169	184	132	165	187	202	140	176	205	222
	L (Deflection)	109	118	132	145	124	134	150	165	132	153	170	187	140	172	192	211
16'-0"	D+L (Strength)	96	114	127	139	103	126	142	154	110	139	156	170	93	148	172	187
	D+L (Deflection)	90	100	116	131	103	118	137	154	110	138	156	170	93	148	172	187
	L (Deflection)	90	97	108	119	103	111	124	136	110	126	140	154	93	142	159	174
17'-0"	D+L (Strength)	61	94	106	116	66	105	118	129	70	117	131	143	75	125	145	158
	D+L (Deflection)	61	76	89	102	66	91	106	120	70	107	125	141	75	125	145	158
	L (Deflection)	61	76	89	99	66	91	103	113	70	105	117	129	75	118	132	145
18'-0"	D+L (Strength)	49	78	88	97	53	87	99	109	57	78	110	121	60	83	122	133
	D+L (Deflection)	49	56	68	78	53	69	82	94	57	78	97	111	60	83	114	129
	L (Deflection)	49	56	68	78	53	69	82	94	57	78	97	108	60	83	111	122
19'-0"	D+L (Strength)	39	55	73	81	42	60	83	91	45	64	92	102	48	69	103	113
	D+L (Deflection)	35	41	51	59	42	51	62	72	45	62	75	86	48	69	89	102
	L (Deflection)	35	41	51	59	42	51	62	72	45	62	75	86	48	69	89	102
20'-0"	D+L (Strength)	30	45	61	67	32	49	69	76	35	52	77	85	37	56	86	95
	D+L (Deflection)	24	29	37	44	32	37	46	55	35	46	57	67	37	56	68	79
	L (Deflection)	24	29	37	44	32	37	46	55	35	46	57	67	37	56	68	79

MAXIMUM UNSHORED CONSTRUCTION CLEAR SPANS

1span	6'-4"	7'-3"	8'-8"	9'-11"	6'-2"	7'-2"	8'-6"	9'-9"	6'-1"	7'-0"	8'-4"	9'-7"	6'-0"	6'-11"	8'-2"	9'-4"
2span	8'-3"	9'-2"	10'-9"	12'-1"	8'-1"	9'-0"	10'-7"	11'-10"	8'-0"	8'-10"	10'-5"	11'-8"	7'-10"	8'-8"	10'-3"	11'-6"
3span	8'-6"	9'-5"	11'-1"	12'-5"	8'-4"	9'-3"	10'-11"	12'-3"	8'-3"	9'-1"	10'-9"	12'-1"	8'-1"	9'-0"	10'-7"	11'-10"
cantilever	2'-8"	3'-1"	3'-11"	4'-8"	2'-7"	3'-1"	3'-11"	4'-7"	2'-7"	3'-0"	3'-10"	4'-7"	2'-7"	3'-0"	3'-10"	4'-6"
cy/100sf	1.44				1.52				1.60				1.67			

8'-0"	D+L (Strength)	400	**Max. superimposed ASD dead + live load (psf) (governed by strength limitation)**
	D+L (Deflection)	400	**Max. superimposed ASD dead + live load (psf) (governed by deflection limitation of L/240)**
	L (Deflection)	400	**Max. superimposed ASD live load (psf) (governed by deflection limitation of L/360)**
▲			**Vertical load span (center to center spacing)**

Wd	Weight of deck (uncoated), psf
I_D	Moment of inertia for deflection per foot of deck width (in^4)/ft
Sp	Section modulus for positive bending per foot of deck width, (in^3)/ft
Sn	Section modulus for negative bending per foot of deck width, (in^3)/ft
Rbe	Allowable exterior web crippling value per foot of deck, plf
Rbi	Allowable interior web crippling value per foot of deck, plf
h	Total height of concrete slab, in
Wc	Weight of concrete (neglecting deflection), psf
f'c	3000 psi
D	Uniform dead load, psf
L	Uniform live load, psf

If welded wire fabric is not supplied per ACI requirements (0.00075*Ac), reduce loads by 10%. The section property table is based on 2001 AISI's Cold-Formed Steel Design Manual, 2004 Supplement. The live loads and unshored construction clear spans are based on the Steel Deck Institute's Composite Deck Design Handbook, March 1997 and Design Manual, Pub. No. 30, and ASCE's Standard for the Structural Design of Composite Slabs. The loads in these tables are based on a Simple Span Design Analysis.

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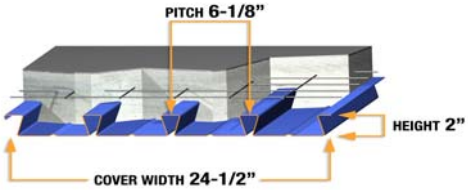

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16	4.51	0.832	0.614	0.617	3431	3887	4271	6670	7128	7542

MAXIMUM SUPERIMPOSED ASD LOADS, (psf), NO STUDS ON BEAMS

Span	h (Wc)	6 (52.0)				6.25 (54.3)				6.5 (56.6)				6.75 (58.9)			
	Load Combinations	GAGE															
		22	20	18	16	22	20	18	16	22	20	18	16	22	20	18	16
8'-0"	D+L (Strength)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	D+L (Deflection)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	L (Deflection)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
9'-0"	D+L (Strength)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	D+L (Deflection)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	L (Deflection)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
10'-0"	D+L (Strength)	395	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	D+L (Deflection)	395	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
	L (Deflection)	395	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
11'-0"	D+L (Strength)	321	374	400	400	338	392	400	400	355	400	400	400	372	400	400	400
	D+L (Deflection)	321	374	400	400	338	392	400	400	355	400	400	400	372	400	400	400
	L (Deflection)	321	374	400	400	338	392	400	400	355	400	400	400	372	400	400	400
12'-0"	D+L (Strength)	261	321	369	400	275	338	387	400	289	355	400	400	303	373	400	400
	D+L (Deflection)	261	321	369	400	275	338	387	400	289	355	400	400	303	373	400	400
	L (Deflection)	261	321	369	400	275	338	387	400	289	355	400	400	303	373	400	400
13'-0"	D+L (Strength)	215	265	321	346	226	280	348	375	238	294	372	400	249	308	388	400
	D+L (Deflection)	215	265	321	346	226	280	348	375	238	294	372	400	249	308	388	400
	L (Deflection)	215	265	321	346	226	280	348	375	238	294	372	400	249	308	388	400
14'-0"	D+L (Strength)	178	221	267	289	187	233	290	314	197	245	314	339	206	257	338	366
	D+L (Deflection)	178	221	267	289	187	233	290	314	197	245	314	339	206	257	338	366
	L (Deflection)	178	221	266	289	187	233	290	314	197	245	314	339	206	257	338	366
15'-0"	D+L (Strength)	148	186	224	242	156	196	243	264	164	206	264	286	141	216	285	309
	D+L (Deflection)	148	186	224	242	156	196	243	264	164	206	264	286	141	216	285	309
	L (Deflection)	148	186	216	237	156	196	241	264	164	206	264	286	141	216	285	309
16'-0"	D+L (Strength)	98	157	188	204	104	165	205	223	110	174	223	242	115	183	241	262
	D+L (Deflection)	98	157	188	204	104	165	205	223	110	174	223	242	115	183	241	262
	L (Deflection)	98	157	178	196	104	165	199	218	110	174	221	242	115	183	241	262
17'-0"	D+L (Strength)	80	132	159	173	84	113	173	189	89	120	189	206	94	126	204	223
	D+L (Deflection)	80	132	159	173	84	113	173	189	89	120	189	206	94	126	204	223
	L (Deflection)	80	132	148	163	84	113	166	182	89	120	185	203	94	126	204	223
18'-0"	D+L (Strength)	64	89	134	147	68	94	147	161	72	99	160	175	76	104	174	190
	D+L (Deflection)	64	89	132	147	68	94	147	161	72	99	160	175	76	104	174	190
	L (Deflection)	64	89	125	137	68	94	140	153	72	99	155	171	76	104	172	189
19'-0"	D+L (Strength)	51	73	113	124	54	77	124	137	57	82	136	149	60	86	148	163
	D+L (Deflection)	51	73	104	119	54	77	120	137	57	82	136	149	60	86	148	163
	L (Deflection)	51	73	104	117	54	77	119	130	57	82	132	145	60	86	146	161
20'-0"	D+L (Strength)	40	60	95	105	42	63	100	116	45	67	106	127	47	71	111	139
	D+L (Deflection)	40	60	81	94	42	63	95	109	45	67	106	125	47	71	111	139
	L (Deflection)	40	60	81	94	42	63	95	109	45	67	106	124	47	71	111	138
MAXIMUM UNSHORED CONSTRUCTION CLEAR SPANS																	
1span		5'-11"	6'-9"	8'-0"	9'-2"	5'-10"	6'-8"	7'-11"	9'-1"	5'-9"	6'-7"	7'-9"	8'-11"	5'-7"	6'-5"	7'-8"	8'-9"
2span		7'-9"	8'-7"	10'-1"	11'-4"	7'-7"	8'-5"	9'-11"	11'-2"	7'-6"	8'-4"	9'-9"	11'-0"	7'-4"	8'-2"	9'-8"	10'-10"
3span		8'-0"	8'-10"	10'-5"	11'-8"	7'-10"	8'-8"	10'-3"	11'-6"	7'-9"	8'-7"	10'-1"	11'-4"	7'-7"	8'-5"	9'-11"	11'-2"
cantilever		2'-6"	2'-11"	3'-9"	4'-5"	2'-6"	2'-11"	3'-8"	4'-4"	2'-6"	2'-11"	3'-8"	4'-4"	2'-5"	2'-10"	3'-7"	4'-3"
cy/100sf		1.75				1.83				1.91				1.98			

8'-0"	D+L (Strength)	400	**Max. superimposed ASD dead + live load (psf) (governed by strength limitation)**
	D+L (Deflection)	400	**Max. superimposed ASD dead + live load (psf) (governed by deflection limitation of L/240)**
	L (Deflection)	400	**Max. superimposed ASD live load (psf) (governed by deflection limitation of L/360)**
▲			**Vertical load span (center to center spacing)**

Wd	Weight of deck (uncoated), psf
I_D	Moment of inertia for deflection per foot of deck width (in^4)/ft
Sp	Section modulus for positive bending per foot of deck width, (in^3)/ft
Sn	Section modulus for negative bending per foot of deck width, (in^3)/ft
Rbe	Allowable exterior web crippling value per foot of deck, plf
Rbi	Allowable interior web crippling value per foot of deck, plf
h	Total height of concrete slab, in
Wc	Weight of concrete (neglecting deflection), psf
f'c	3000 psi
D	Uniform dead load, psf
L	Uniform live load, psf

If welded wire fabric is not supplied per ACI requirements (0.00075*Ac), reduce loads by 10%. The section property table is based on 2001 AISI's Cold-Formed Steel Design Manual, 2004 Supplement. The live loads and unshored construction clear spans are based on the Steel Deck Institute's Composite Deck Design Handbook, March 1997 and Design Manual, Pub. No. 30, and ASCE's Standard for the Structural Design of Composite Slabs. The loads in these tables are based on a Simple Span Design Analysis.

110 PCF LIGHTWEIGHT CONCRETE TABLE