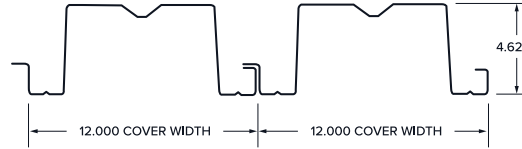


4.5" Deep-Dek® (4.5D)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
20	0.0358	12	3.09
18	0.0474		4.09
16	0.0598		5.16
14	0.0747		6.44



ICC-ES APPROVED
REFER TO ESR-2657

ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	Mn,p/Ω (in-lb/ft)	Mn,n/Ω (in-lb/ft)	Vn/Ω (lb/ft)	*Rbe/Ω (lb/ft)	*Rbi/Ω (lb/ft)
20	40	2.735	2.978	2.613	2.978	0.984	1.207	23563	28920	1871	588	1164
18	40	3.832	3.939	3.778	3.939	1.491	1.596	35724	38237	4224	990	1925
16	40	4.963	4.963	4.963	4.963	1.972	2.011	47234	48168	6723	1518	2917
14	40	6.191	6.191	6.191	6.191	2.507	2.507	60060	60060	9675	2279	4341

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16.
 - Web crippling design strengths* are based on minimum bearing lengths of 4" for end bearing and 6" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		10 - 0	11 - 0	12 - 0	13 - 0	14 - 0	15 - 0	16 - 0	18 - 0	20 - 0	22 - 0	
Single	20	118 / 179	107 / 135	98 / 104	90 / 82	80 / 65	70 / 53	61 / 44	48 / 31	39 / 22	32 / 17	31 - 6
	18	198 / 251	180 / 189	165 / 145	141 / 114	122 / 92	106 / 74	93 / 61	74 / 43	60 / 31	49 / 24	40 - 0
	16	304 / 325	260 / 244	219 / 188	186 / 148	161 / 119	140 / 96	123 / 79	97 / 56	79 / 41	65 / 31	40 - 0
	14	400 / 406	331 / 305	278 / 235	237 / 185	204 / 148	178 / 120	156 / 99	124 / 70	100 / 51	83 / 38	40 - 0
Double	20	93 / 471	85 / 354	78 / 272	72 / 214	67 / 172	62 / 139	58 / 115	52 / 81	46 / 59	-	37 - 10
	18	154 / 623	140 / 468	128 / 360	118 / 283	110 / 227	103 / 184	96 / 152	77 / 107	63 / 78	-	40 - 0
	16	233 / 785	212 / 589	194 / 454	179 / 357	160 / 286	140 / 232	123 / 192	98 / 135	79 / 98	-	40 - 0
	14	347 / 979	316 / 735	272 / 566	232 / 445	201 / 357	175 / 290	154 / 239	122 / 168	99 / 122	-	40 - 0
Triple	20	106 / 368	96 / 277	88 / 213	81 / 168	76 / 134	71 / 109	-	-	-	-	38 - 4
	18	175 / 487	159 / 366	146 / 282	135 / 222	125 / 178	117 / 144	-	-	-	-	40 - 0
	16	265 / 614	241 / 461	221 / 355	204 / 279	189 / 224	174 / 182	-	-	-	-	40 - 0
	14	395 / 766	359 / 575	329 / 443	288 / 349	249 / 279	218 / 227	-	-	-	-	40 - 0

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 4" for end bearing and 6" for interior bearing. Check web crippling if minimums are not met.
 - Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
20	40	7 - 0	5 - 11	4 - 4
18	40	8 - 11	5 - 11	4 - 4
16	40	9 - 3	5 - 11	4 - 4
14	40	9 - 7	5 - 11	4 - 4

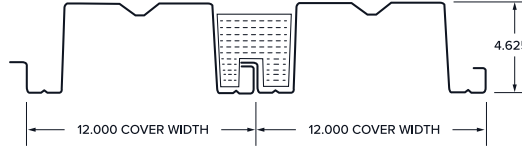
Notes:

- Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 6" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.

4.5" Deep-Dek® Acoustical (4.5DA)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
20	0.0358	12	2.94
18	0.0474		3.88
16	0.0598		4.90
14	0.0747		6.11



ICC-ES APPROVED
REFER TO ESR-2657

ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
20	40	2.546	2.789	2.425	2.789	0.904	1.127	21641	26993	1274	588	845
18	40	3.586	3.690	3.533	3.690	1.385	1.491	33170	35704	2874	990	1391
16	40	4.652	4.652	4.652	4.652	1.840	1.879	44064	44996	4568	1518	2099
14	40	5.806	5.806	5.806	5.806	2.344	2.344	56135	56135	6564	2279	3113

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16, with perforation modifiers.
 - Web crippling design strengths* are based on minimum bearing lengths of 4" for end bearing and 6" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		10 - 0	11 - 0	12 - 0	13 - 0	14 - 0	15 - 0	16 - 0	18 - 0	20 - 0	22 - 0	
Single	20	118 / 167	107 / 125	98 / 97	85 / 76	74 / 61	64 / 49	56 / 41	45 / 29	36 / 21	30 / 16	29 - 7
	18	198 / 235	180 / 177	154 / 136	131 / 107	113 / 86	98 / 70	86 / 57	68 / 40	55 / 29	46 / 22	39 - 10
	16	294 / 305	243 / 229	204 / 176	174 / 139	150 / 111	131 / 90	115 / 74	91 / 52	73 / 38	61 / 29	40 - 0
	14	374 / 381	309 / 286	260 / 220	221 / 173	191 / 139	166 / 113	146 / 93	116 / 65	94 / 48	77 / 36	40 - 0
Double	20	68 / 441	61 / 331	56 / 255	52 / 201	48 / 161	45 / 131	42 / 108	38 / 76	34 / 55	-	35 - 7
	18	111 / 583	101 / 438	93 / 338	86 / 265	79 / 213	74 / 173	70 / 142	62 / 100	56 / 73	-	40 - 0
	16	168 / 735	153 / 552	140 / 426	129 / 335	120 / 268	112 / 218	105 / 180	90 / 126	73 / 92	-	40 - 0
	14	249 / 918	226 / 690	208 / 531	192 / 418	178 / 334	162 / 272	143 / 224	113 / 157	92 / 115	-	40 - 0
Triple	20	77 / 345	70 / 259	64 / 200	59 / 157	55 / 126	51 / 102	-	-	-	-	36 - 1
	18	126 / 456	115 / 343	105 / 264	97 / 208	90 / 166	84 / 135	-	-	-	-	40 - 0
	16	191 / 575	173 / 432	159 / 333	147 / 262	136 / 210	127 / 171	-	-	-	-	40 - 0
	14	283 / 718	257 / 540	236 / 416	218 / 327	202 / 262	189 / 213	-	-	-	-	40 - 0

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 4" for end bearing and 6" for interior bearing. Check web crippling if minimums are not met.
 - Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
20	40	4 - 7	5 - 6	4 - 4
18	40	8 - 10	5 - 11	4 - 4
16	40	9 - 2	5 - 11	4 - 4
14	40	9 - 6	5 - 11	4 - 4

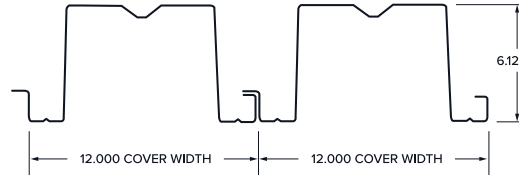
Notes:

- Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 6" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.

6.0" Deep-Dek® (6.0D)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
20	0.0358	12	3.44
18	0.0474		4.55
16	0.0598		5.74
14	0.0747		7.16



ICC-ES APPROVED
REFER TO ESR-2657

ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
20	40	5.304	5.668	5.083	5.629	1.367	1.711	32738	40994	1391	552	1156
18	40	7.395	7.601	7.292	7.601	2.172	2.358	52033	56485	3235	940	1913
16	40	9.579	9.579	9.579	9.579	2.915	2.971	69827	71160	6510	1452	2900
14	40	11.950	11.950	11.950	11.950	3.705	3.705	88739	88739	10491	2193	4319

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16.
 - Web crippling design strengths* are based on minimum bearing lengths of 4" for end bearing and 6" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		14 - 0	15 - 0	16 - 0	17 - 0	18 - 0	19 - 0	20 - 0	22 - 0	24 - 0	26 - 0	
Single	20	79 / 127	74 / 103	69 / 85	65 / 71	61 / 60	58 / 51	55 / 43	45 / 33	38 / 25	32 / 20	40 - 0
	18	134 / 177	125 / 144	118 / 118	111 / 99	104 / 83	96 / 71	87 / 61	72 / 46	60 / 35	51 / 28	40 - 0
	16	207 / 229	194 / 186	181 / 153	161 / 128	144 / 108	129 / 92	116 / 78	96 / 59	81 / 45	69 / 36	40 - 0
	14	302 / 285	263 / 232	231 / 191	205 / 159	183 / 134	164 / 114	148 / 98	122 / 74	103 / 57	88 / 45	40 - 0
Double	20	66 / 327	62 / 265	58 / 219	54 / 182	51 / 154	49 / 131	46 / 112	-	-	-	40 - 0
	18	109 / 438	102 / 356	96 / 293	90 / 245	85 / 206	81 / 175	77 / 150	-	-	-	40 - 0
	16	166 / 552	155 / 449	145 / 370	136 / 308	129 / 260	122 / 221	116 / 189	-	-	-	40 - 0
	14	247 / 688	230 / 560	216 / 461	200 / 384	179 / 324	161 / 275	146 / 236	-	-	-	40 - 0
Triple	20	75 / 256	70 / 208	-	-	-	-	-	-	-	-	40 - 0
	18	124 / 343	116 / 279	-	-	-	-	-	-	-	-	40 - 0
	16	188 / 432	176 / 351	-	-	-	-	-	-	-	-	40 - 0
	14	280 / 539	262 / 438	-	-	-	-	-	-	-	-	40 - 0

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 4" for end bearing and 6" for interior bearing. Check web crippling if minimums are not met.
 - Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
20	40	8 - 4	5 - 11	4 - 4
18	40	9 - 11	5 - 11	4 - 4
16	40	9 - 11	5 - 11	4 - 4
14	40	9 - 11	5 - 11	4 - 4

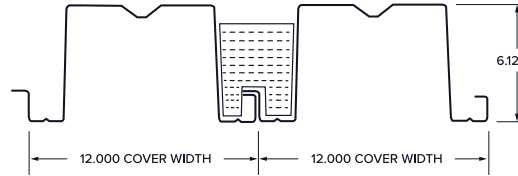
Notes:

- Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 6" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.

6.0" Deep-Dek® Acoustical (6.0DA)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
20	0.0358	12	3.22
18	0.0474		4.27
16	0.0598		5.38
14	0.0747		6.71



ICC-ES APPROVED
REFER TO ESR-2657

ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
20	40	4.836	5.188	4.615	5.143	1.195	1.542	28613	36933	935	460	843
18	40	6.781	6.983	6.680	6.983	1.972	2.159	47242	51720	2172	863	1387
16	40	8.804	8.804	8.804	8.804	2.665	2.721	63836	65185	4365	1438	2094
14	40	10.989	10.989	10.989	10.989	3.395	3.395	81328	81328	7026	2193	3107

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16, with perforation modifiers.
 - Web crippling design strengths* are based on minimum bearing lengths of 4" for end bearing and 6" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		14 - 0	15 - 0	16 - 0	17 - 0	18 - 0	19 - 0	20 - 0	22 - 0	24 - 0	26 - 0	
Single	20	66 / 116	61 / 94	57 / 77	54 / 65	51 / 54	48 / 46	46 / 40	39 / 30	33 / 23	28 / 18	36 - 9
	18	123 / 162	115 / 132	108 / 109	102 / 90	96 / 76	87 / 65	79 / 56	65 / 42	55 / 32	47 / 25	40 - 0
	16	205 / 210	189 / 171	166 / 141	147 / 117	131 / 99	118 / 84	106 / 72	88 / 54	74 / 42	63 / 33	40 - 0
	14	277 / 263	241 / 213	212 / 176	188 / 147	167 / 124	150 / 105	136 / 90	112 / 68	94 / 52	80 / 41	40 - 0
Double	20	48 / 299	45 / 243	42 / 200	40 / 167	37 / 141	36 / 120	34 / 103	-	-	-	40 - 0
	18	79 / 402	74 / 327	69 / 269	65 / 225	62 / 189	58 / 161	55 / 138	-	-	-	40 - 0
	16	120 / 507	112 / 412	105 / 340	99 / 283	93 / 239	88 / 203	84 / 174	-	-	-	40 - 0
	14	178 / 633	166 / 515	155 / 424	146 / 354	138 / 298	131 / 253	124 / 217	-	-	-	40 - 0
Triple	20	55 / 234	51 / 190	-	-	-	-	-	-	-	-	40 - 0
	18	90 / 315	84 / 256	-	-	-	-	-	-	-	-	40 - 0
	16	136 / 397	127 / 323	-	-	-	-	-	-	-	-	40 - 0
	14	202 / 495	188 / 403	-	-	-	-	-	-	-	-	40 - 0

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 4" for end bearing and 6" for interior bearing. Check web crippling if minimums are not met.
 - Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
20	40	3 - 0	4 - 4	4 - 2
18	40	9 - 11	5 - 11	4 - 4
16	40	9 - 11	5 - 11	4 - 4
14	40	9 - 11	5 - 11	4 - 4

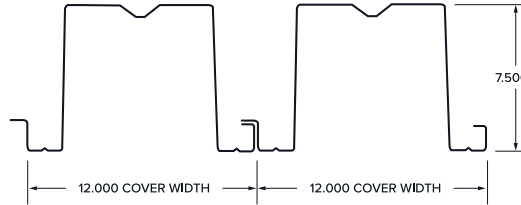
Notes:

- Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 6" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.

7.5" Deep-Dek® (7.5D)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
20	0.0358	12	3.79
18	0.0474		5.01
16	0.0598		6.32
14	0.0747		7.89



ICC-ES APPROVED
REFER TO ESR-2657

ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
20	40	8.828	9.285	8.446	9.131	1.712	2.162	41004	51795	1108	521	1148
18	40	12.357	12.510	12.191	12.420	2.909	3.049	69680	73035	2575	896	1902
16	40	15.992	15.992	15.992	15.992	3.936	4.009	94274	96035	5178	1394	2886
14	40	19.952	19.952	19.952	19.952	5.000	5.000	119769	119769	10113	2117	4300

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16.
 - Web crippling design strengths* are based on minimum bearing lengths of 4" for end bearing and 6" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		15 - 0	16 - 0	17 - 0	18 - 0	20 - 0	22 - 0	24 - 0	26 - 0	28 - 0	30 - 0	
Single	20	69 / 171	65 / 141	61 / 118	58 / 99	52 / 72	47 / 54	43 / 42	40 / 33	35 / 26	30 / 21	40 - 0
	18	120 / 240	112 / 198	105 / 165	100 / 139	90 / 101	81 / 76	75 / 59	69 / 46	59 / 37	52 / 30	40 - 0
	16	186 / 311	174 / 256	164 / 213	155 / 180	139 / 131	127 / 98	109 / 76	93 / 60	80 / 48	70 / 39	40 - 0
	14	282 / 388	265 / 319	249 / 266	235 / 224	200 / 163	165 / 123	139 / 95	118 / 74	102 / 60	89 / 48	40 - 0
Double	20	61 / 435	57 / 358	54 / 299	51 / 252	46 / 183	-	-	-	-	-	40 - 0
	18	101 / 586	95 / 483	90 / 402	85 / 339	76 / 247	-	-	-	-	-	40 - 0
	16	154 / 749	144 / 617	136 / 515	128 / 433	115 / 316	-	-	-	-	-	40 - 0
	14	229 / 934	215 / 770	202 / 642	191 / 541	172 / 394	-	-	-	-	-	40 - 0
Triple	20	70 / 340	-	-	-	-	-	-	-	-	-	40 - 0
	18	115 / 459	-	-	-	-	-	-	-	-	-	40 - 0
	16	175 / 586	-	-	-	-	-	-	-	-	-	40 - 0
	14	261 / 731	-	-	-	-	-	-	-	-	-	40 - 0

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 4" for end bearing and 6" for interior bearing. Check web crippling if minimums are not met.
 - Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
20	40	6 - 11	5 - 11	4 - 4
18	40	9 - 11	5 - 11	4 - 4
16	40	9 - 11	5 - 11	4 - 4
14	40	9 - 11	5 - 11	4 - 4

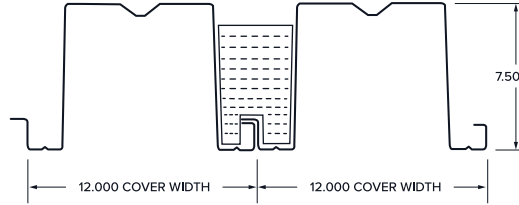
Notes:

- Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 6" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.

7.5" Deep-Dek® Acoustical (7.5DA)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
20	0.0358	12	3.51
18	0.0474		4.65
16	0.0598		5.86
14	0.0747		7.31



ICC-ES APPROVED
REFER TO ESR-2657

ASD

SECTION PROPERTIES

DESIGN STRENGTHS

Gage	F _y (ksi)	I _D 1 Span (in ⁴ /ft)	I _D 2+ Span (in ⁴ /ft)	I _p (in ⁴ /ft)	I _n (in ⁴ /ft)	S _p (in ³ /ft)	S _n (in ³ /ft)	M _{n,p} /Ω (in-lb/ft)	M _{n,n} /Ω (in-lb/ft)	V _n /Ω (lb/ft)	*R _{be} /Ω (lb/ft)	*R _{bi} /Ω (lb/ft)
20	40	7.829	8.301	7.417	8.126	1.448	1.897	34673	45448	738	422	841
18	40	11.122	11.238	10.959	11.132	2.528	2.710	60556	64914	1714	807	1385
16	40	14.434	14.434	14.434	14.434	3.531	3.606	84580	86380	3445	1360	2091
14	40	18.017	18.017	18.017	18.017	4.500	4.500	107778	107778	6720	2117	3103

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16, with perforation modifiers.
 - Web crippling design strengths* are based on minimum bearing lengths of 4" for end bearing and 6" for interior bearing.

ALLOWABLE UNIFORM LOADS AND MAXIMUM CONSTRUCTION SPANS

Span Condition	Gage	Allowable Uniform Total Load (psf) / Load that Produces L/240 Deflection (psf)										SDI Max. Constr. Span (ctr / ctr)
		Center to Center Span (ft - in)										
		15 - 0	16 - 0	17 - 0	18 - 0	20 - 0	22 - 0	24 - 0	26 - 0	28 - 0	30 - 0	
Single	20	56 / 152	53 / 125	50 / 104	47 / 88	42 / 64	38 / 48	35 / 37	32 / 29	29 / 23	26 / 19	40 - 0
	18	108 / 216	101 / 178	95 / 148	90 / 125	81 / 91	73 / 68	67 / 53	60 / 41	51 / 33	45 / 27	40 - 0
	16	181 / 280	170 / 231	160 / 193	151 / 162	136 / 118	117 / 89	98 / 68	83 / 54	72 / 43	63 / 35	40 - 0
	14	296 / 350	277 / 288	249 / 240	222 / 203	180 / 148	148 / 111	125 / 85	106 / 67	92 / 54	80 / 44	40 - 0
Double	20	45 / 389	42 / 320	40 / 267	37 / 225	34 / 164	-	-	-	-	-	40 - 0
	18	74 / 526	69 / 434	65 / 362	62 / 305	55 / 222	-	-	-	-	-	40 - 0
	16	112 / 676	105 / 557	98 / 464	93 / 391	84 / 285	-	-	-	-	-	40 - 0
	14	165 / 844	155 / 695	146 / 580	138 / 488	124 / 356	-	-	-	-	-	40 - 0
Triple	20	51 / 304	-	-	-	-	-	-	-	-	-	40 - 0
	18	84 / 412	-	-	-	-	-	-	-	-	-	40 - 0
	16	127 / 529	-	-	-	-	-	-	-	-	-	40 - 0
	14	188 / 660	-	-	-	-	-	-	-	-	-	40 - 0

- Notes:**
- Allowable Uniform Loads and maximum construction spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Minimum bearing lengths of 4" for end bearing and 6" for interior bearing. Check web crippling if minimums are not met.
 - Maximum construction spans shown include a check for deck self-weight plus a nominal 200 lbs. concentrated load supported by a one foot section of deck per SDI criteria which exceeds the IBC requirement of a 300 lbs. roof maintenance load distributed over an area of 2 1/2 feet by 2 1/2 feet per Section 1607.4 and Table 1607.1.
 - "Load that Produces L/240 Deflection" values shown in RED exceed the "Allowable Uniform Total Load". These loads may be used to determine the deck capacity under deflection limits more stringent than L/240. In no case shall the "Allowable Uniform Total Load" be exceeded.
 - See website at www.newmill.com for Factory Mutual approved deck types and maximum FM construction spans.

MAXIMUM CANTILEVER SPANS

Gage	F _y (ksi)	Back-Span Condition		
		Single	Double	Triple
20	40	1 - 4	3 - 0	2 - 10
18	40	9 - 11	5 - 11	4 - 4
16	40	9 - 11	5 - 11	4 - 4
14	40	9 - 11	5 - 11	4 - 4

Notes:

- Maximum cantilever spans shown are based on the following criteria:
 - ANSI/SDI RD-2017 Standard for Steel Roof Deck
 - Adjacent span assumed to be at least 3 times longer than the cantilever and no greater than the maximum design or construction spans shown in table above
 - Bearing width at perimeter support assumed to be 6" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.