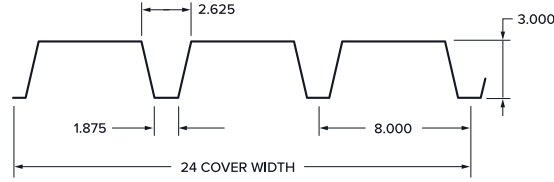


ND N-Dek (Memphis Plant Only)

PROPERTIES

Gage	Thickness (in)	Cover (in)	Weight (psf)
22	0.0295	24	2.04
20	0.0358		2.47
18	0.0474		3.27
16	0.0598		4.13



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)
22	40	0.725	0.850	0.655	0.843	0.363	0.453	8692	10848	2434	464	923
20	40	0.928	1.043	0.868	1.040	0.477	0.563	11413	13484	3585	668	1325
18	40	1.297	1.386	1.253	1.386	0.683	0.752	16356	18023	5620	1131	2232
16	40	1.698	1.747	1.674	1.747	0.887	0.948	21249	22708	7062	1745	3430

- Notes:**
- Section properties are calculated in accordance with the AISI S100-16.
 - Web crippling design strengths* are based on minimum bearing lengths of 1 1/2" for end bearing and 3" 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)										
		8 - 0	10 - 0	11 - 0	12 - 0	13 - 0	14 - 0	15 - 0	16 - 0	18 - 0	20 - 0	
Single	22	91 / 93	58 / 48	48 / 36	40 / 27	34 / 22	30 / 17	-	-	-	-	13 - 6
	20	119 / 119	76 / 61	63 / 46	53 / 35	45 / 28	39 / 22	34 / 18	30 / 15	23 / 10	-	17 - 2
	18	170 / 166	109 / 85	90 / 64	76 / 49	65 / 39	56 / 31	48 / 25	43 / 21	34 / 15	27 / 11	22 - 11
	16	221 / 217	142 / 111	117 / 84	98 / 64	84 / 51	72 / 41	63 / 33	55 / 27	44 / 19	35 / 14	27 - 6
Double	22	92 / 262	71 / 134	59 / 101	50 / 78	42 / 61	37 / 49	32 / 40	28 / 33	22 / 23	-	16 - 6
	20	133 / 322	89 / 165	74 / 124	62 / 95	53 / 75	46 / 60	40 / 49	35 / 40	28 / 28	-	20 - 10
	18	185 / 428	119 / 219	99 / 165	83 / 127	71 / 100	61 / 80	53 / 65	47 / 53	37 / 38	30 / 27	27 - 8
	16	233 / 539	150 / 276	124 / 207	104 / 160	89 / 126	77 / 101	67 / 82	59 / 67	47 / 47	38 / 35	33 - 0
Triple	22	105 / 205	84 / 105	73 / 79	62 / 61	53 / 48	46 / 38	40 / 31	-	-	-	16 - 9
	20	151 / 252	110 / 129	92 / 97	77 / 75	66 / 59	57 / 47	50 / 38	-	-	-	21 - 2
	18	230 / 335	148 / 171	123 / 129	103 / 99	88 / 78	76 / 62	66 / 51	-	-	-	28 - 0
	16	290 / 422	187 / 216	155 / 162	130 / 125	111 / 98	96 / 79	84 / 64	-	-	-	33 - 5

- 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 1 1/2" for end bearing and 3" 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
22	40	4 - 0	4 - 0	4 - 0
20	40	4 - 10	4 - 10	4 - 4
18	40	5 - 10	5 - 11	4 - 4
16	40	6 - 2	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 3" minimum
 - Design total uniform load of 45 psf in conjunction with a 100 lb. concentrated load.