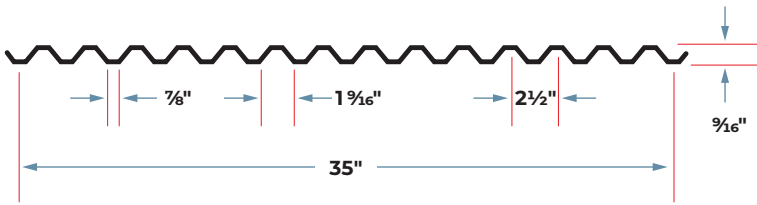


9/16" FORM DECK

GRADE 80 STEEL



Section Properties

| Gage | Design Thickness (inches) | Weight (psf) | F _y (ksi) | S _e + (inch ³) per foot | S _e - (inch ³) per foot | ASD (Ω = 1.67) | | I _d + (inch ⁴) per ft. | I _d - (inch ⁴) per ft. |
|-----------|---------------------------|--------------|----------------------|--|--|-------------------------------------|---------------------------------------|---|---|
| | | | | | | M _p /Ω (inch-lbs per ft) | M _n /Ω (inch-lbs per foot) | | |
| 28 | 0.0149 | 0.7 | 60 | 0.034 | 0.036 | 1239 | 1304 | 0.012 | 0.012 |
| 26 | 0.0179 | 0.9 | 60 | 0.045 | 0.047 | 1599 | 1683 | 0.015 | 0.015 |
| 24 | 0.0239 | 1.2 | 60 | 0.065 | 0.068 | 2348 | 2433 | 0.021 | 0.021 |
| 22 | 0.0295 | 1.4 | 60 | 0.084 | 0.084 | 3024 | 3024 | 0.024 | 0.024 |

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Shear and Web Crippling

| Gage | V _n /Ω (lbs/ft) | Web Crippling (R _n /Ω), lbs/ft One Flange Loading End Bearing | | | Web Crippling (R _n /Ω), lbs/ft One Flange Loading Interior Bearing | | |
|-----------|----------------------------|--|------|------|---|------|------|
| | | 1-1/2" | 2" | 3" | 1-1/2" | 2" | 3" |
| | | 28 | 2191 | 670 | 744 | 869 | 721 |
| 26 | 2686 | 934 | 1034 | 1203 | 1058 | 1157 | 1324 |
| 24 | 3551 | 1570 | 1732 | 2002 | 1902 | 2071 | 2354 |
| 22 | 4384 | 2291 | 2519 | 2900 | 2890 | 3135 | 3546 |

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Allowable Uniform Downward Loads, ASD (PSF)

| Span | Gage | 1'-0" | 1'-6" | 2'-0" | 2'-6" | 3'-0" | 3'-6" | 4'-0" | 4'-6" | 5'-0" | 5'-6" | 6'-0" |
|---------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Single | 28 | 826 | 367 | 207 | 132 | 92 | 67 | 52 | 41 | 33 | 27 | 23 |
| | 26 | 1066 | 474 | 266 | 171 | 118 | 87 | 67 | 53 | 43 | 35 | 30 |
| | 24 | 1565 | 696 | 391 | 250 | 174 | 128 | 98 | 77 | 63 | 52 | 43 |
| | 22 | 2016 | 896 | 504 | 323 | 224 | 165 | 126 | 100 | 81 | 67 | 56 |
| Double | 28 | 870 | 387 | 217 | 139 | 97 | 71 | 54 | 43 | 35 | 29 | 24 |
| | 26 | 1122 | 499 | 280 | 179 | 125 | 92 | 70 | 55 | 45 | 37 | 31 |
| | 24 | 1622 | 721 | 405 | 260 | 180 | 132 | 101 | 80 | 65 | 54 | 45 |
| | 22 | 2016 | 896 | 504 | 323 | 224 | 165 | 126 | 100 | 81 | 67 | 56 |
| Triple | 28 | 1087 | 483 | 272 | 174 | 121 | 89 | 68 | 54 | 43 | 36 | 30 |
| | 26 | 1402 | 623 | 351 | 224 | 156 | 114 | 88 | 69 | 56 | 46 | 39 |
| | 24 | 2027 | 901 | 507 | 324 | 225 | 165 | 127 | 100 | 81 | 67 | 56 |
| | 22 | 2520 | 1120 | 630 | 403 | 280 | 206 | 158 | 124 | 101 | 83 | 70 |

Allowable Uniform Upward Loads, ASD (PSF)

| Span | Gage | 1'-0" | 1'-6" | 2'-0" | 2'-6" | 3'-0" | 3'-6" | 4'-0" | 4'-6" | 5'-0" | 5'-6" | 6'-0" |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Single | 28 | 870 | 387 | 217 | 139 | 97 | 71 | 54 | 43 | 35 | 29 | 24 |
| | 26 | 1122 | 499 | 280 | 179 | 125 | 92 | 70 | 55 | 45 | 37 | 31 |
| | 24 | 1622 | 721 | 405 | 260 | 180 | 132 | 101 | 80 | 65 | 54 | 45 |
| | 22 | 2016 | 896 | 504 | 323 | 224 | 165 | 126 | 100 | 81 | 67 | 56 |
| Double | 28 | 826 | 367 | 207 | 132 | 92 | 67 | 52 | 41 | 33 | 27 | 23 |
| | 26 | 1066 | 474 | 266 | 171 | 118 | 87 | 67 | 53 | 43 | 35 | 30 |
| | 24 | 1565 | 696 | 391 | 250 | 174 | 128 | 98 | 77 | 63 | 52 | 43 |
| | 22 | 2016 | 896 | 504 | 323 | 224 | 165 | 126 | 100 | 81 | 67 | 56 |
| Triple | 28 | 1033 | 459 | 258 | 165 | 115 | 84 | 65 | 51 | 41 | 34 | 29 |
| | 26 | 1332 | 592 | 333 | 213 | 148 | 109 | 83 | 66 | 53 | 44 | 37 |
| | 24 | 1957 | 870 | 489 | 313 | 217 | 160 | 122 | 97 | 78 | 65 | 54 |
| | 22 | 2520 | 1120 | 630 | 403 | 280 | 206 | 158 | 124 | 101 | 83 | 70 |

Notes

- All section properties and ASD ($\Omega = 1.67$) uniform loads are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016
- 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.
- Bending Moment formulae used for flexural stress limitations are: Simple and Two Span $M = \frac{wL^2}{8}$ Three Span or More $M = \frac{wL^2}{10}$
- Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

Uniform Superimposed Service Load that Causes L/240 Deflection (PSF)

| Span | Gage | 1'-0" | 1'-6" | 2'-0" | 2'-6" | 3'-0" | 3'-6" | 4'-0" | 4'-6" | 5'-0" | 5'-6" | 6'-0" |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Single | 28 | 743 | 220 | 93 | 48 | 28 | 17 | 12 | 8 | 6 | 4 | 3 |
| | 26 | 923 | 273 | 115 | 59 | 34 | 22 | 14 | 10 | 7 | 6 | 4 |
| | 24 | 1351 | 400 | 169 | 86 | 50 | 32 | 21 | 15 | 11 | 8 | 6 |
| | 22 | 1576 | 467 | 197 | 101 | 58 | 37 | 25 | 17 | 13 | 9 | 7 |
| Double | 28 | 1788 | 530 | 224 | 114 | 66 | 42 | 28 | 20 | 14 | 11 | 8 |
| | 26 | 2222 | 658 | 278 | 142 | 82 | 52 | 35 | 24 | 18 | 13 | 10 |
| | 24 | 3252 | 963 | 406 | 208 | 120 | 76 | 51 | 36 | 26 | 20 | 15 |
| | 22 | 3794 | 1124 | 474 | 243 | 141 | 88 | 59 | 42 | 30 | 23 | 18 |
| Triple | 28 | 1400 | 415 | 175 | 90 | 52 | 33 | 22 | 15 | 11 | 8 | 6 |
| | 26 | 1739 | 515 | 217 | 111 | 64 | 41 | 27 | 19 | 14 | 10 | 8 |
| | 24 | 2545 | 754 | 318 | 163 | 94 | 59 | 40 | 28 | 20 | 15 | 12 |
| | 22 | 2969 | 880 | 371 | 190 | 110 | 69 | 46 | 33 | 24 | 18 | 14 |

Note

For loads that cause L/120 Deflection, multiply by 2.0. For loads that cause L/180 Deflection, multiply by 1.5. For loads that cause L/360 Deflection, multiply by 0.667.

Construction Span Table – 20 psf Construction Load

| Total Slab Depth | Normal Weight Concrete (145 pcf) | | | |
|---|----------------------------------|-----------------------------|--------|--------|
| | Deck Type | Maximum Unshored Clear Span | | |
| | | 1 span | 2 span | 3 span |
| 2.50 (t=1.94) 27 PSF | 9/16x2.5x28 ga | 2'-3 | 2'-9 | 2'-8 |
| | 9/16x2.5x26 ga | 2'-10 | 3'-4 | 3'-4 |
| | 9/16x2.5x24 ga | 3'-10 | 4'-7 | 4'-7 |
| | 9/16x2.5x22 ga | 4'-3 | 5'-7 | 5'-3 |
| 3.00 (t=2.44) 33 PSF | 9/16x2.5x28 ga | 2'-2 | 2'-8 | 2'-7 |
| | 9/16x2.5x26 ga | 2'-9 | 3'-3 | 3'-3 |
| | 9/16x2.5x24 ga | 3'-8 | 4'-4 | 4'-4 |
| | 9/16x2.5x22 ga | 3'-11 | 5'-3 | 4'-11 |
| 3.50 (t=2.94) 39 PSF | 9/16x2.5x28 ga | 2'-2 | 2'-7 | 2'-6 |
| | 9/16x2.5x26 ga | 2'-8 | 3'-2 | 3'-1 |
| | 9/16x2.5x24 ga | 3'-7 | 4'-2 | 4'-2 |
| | 9/16x2.5x22 ga | 3'-9 | 5'-0 | 4'-8 |
| 4.00 (t=3.44) 45 PSF | 9/16x2.5x28 ga | 2'-1 | 2'-6 | 2'-6 |
| | 9/16x2.5x26 ga | 2'-7 | 3'-0 | 3'-0 |
| | 9/16x2.5x24 ga | 3'-5 | 4'-1 | 4'-1 |
| | 9/16x2.5x22 ga | 3'-7 | 4'-9 | 4'-5 |
| 4.50 (t=3.94) 51 PSF | 9/16x2.5x28 ga | 2'-0 | 2'-5 | 2'-5 |
| | 9/16x2.5x26 ga | 2'-6 | 2'-11 | 2'-11 |
| | 9/16x2.5x24 ga | 3'-3 | 3'-11 | 3'-11 |
| | 9/16x2.5x22 ga | 3'-5 | 4'-7 | 4'-3 |
| 5.00 (t=4.44) 57 PSF | 9/16x2.5x28 ga | 1'-12 | 2'-4 | 2'-4 |
| | 9/16x2.5x26 ga | 2'-5 | 2'-10 | 2'-10 |
| | 9/16x2.5x24 ga | 3'-2 | 3'-10 | 3'-10 |
| | 9/16x2.5x22 ga | 3'-4 | 4'-5 | 4'-1 |

| Total Slab Depth | Lightweight Concrete (115 pcf) | | | |
|---|--------------------------------|-----------------------------|--------|--------|
| | Deck Type | Maximum Unshored Clear Span | | |
| | | 1 span | 2 span | 3 span |
| 2.50 (t=1.94) 20 PSF | 9/16x2.5x28 ga | 2'-10 | 3'-5 | 3'-4 |
| | 9/16x2.5x26 ga | 3'-6 | 4'-2 | 4'-2 |
| | 9/16x2.5x24 ga | 4'-5 | 5'-8 | 5'-6 |
| | 9/16x2.5x22 ga | 4'-8 | 6'-3 | 5'-9 |
| 3.00 (t=2.44) 25 PSF | 9/16x2.5x28 ga | 2'-9 | 3'-3 | 3'-3 |
| | 9/16x2.5x26 ga | 3'-4 | 4'-0 | 4'-0 |
| | 9/16x2.5x24 ga | 4'-2 | 5'-4 | 5'-1 |
| | 9/16x2.5x22 ga | 4'-4 | 5'-10 | 5'-4 |
| 3.50 (t=2.94) 30 PSF | 9/16x2.5x28 ga | 3'-3 | 3'-10 | 3'-10 |
| | 9/16x2.5x26 ga | 3'-3 | 3'-10 | 3'-10 |
| | 9/16x2.5x24 ga | 3'-11 | 5'-1 | 4'-10 |
| | 9/16x2.5x22 ga | 4'-1 | 5'-6 | 5'-0 |
| 4.00 (t=3.44) 34 PSF | 9/16x2.5x28 ga | 2'-7 | 3'-1 | 3'-1 |
| | 9/16x2.5x26 ga | 3'-2 | 3'-9 | 3'-9 |
| | 9/16x2.5x24 ga | 3'-9 | 4'-11 | 4'-8 |
| | 9/16x2.5x22 ga | 3'-11 | 5'-3 | 4'-10 |
| 4.50 (t=3.94) 39 PSF | 9/16x2.5x28 ga | 2'-6 | 3'-0 | 3'-0 |
| | 9/16x2.5x26 ga | 3'-0 | 3'-7 | 3'-7 |
| | 9/16x2.5x24 ga | 3'-7 | 4'-9 | 4'-5 |
| | 9/16x2.5x22 ga | 3'-9 | 5'-0 | 4'-8 |
| 5.00 (t=4.44) 43 PSF | 9/16x2.5x28 ga | 2'-5 | 2'-11 | 2'-11 |
| | 9/16x2.5x26 ga | 3'-0 | 3'-6 | 3'-6 |
| | 9/16x2.5x24 ga | 3'-6 | 4'-7 | 4'-3 |
| | 9/16x2.5x22 ga | 3'-8 | 4'-10 | 4'-6 |

Note

Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.