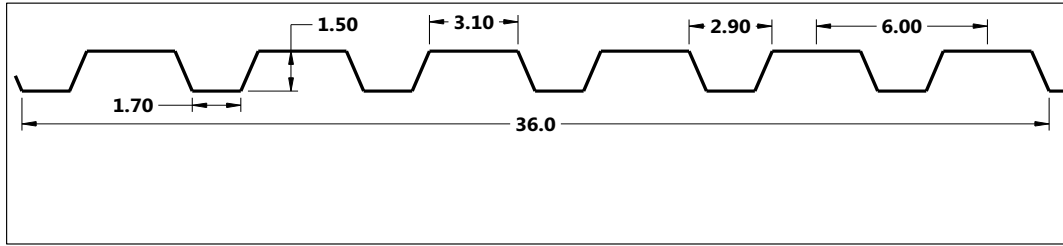


ACCUFORM METAL LTD.

AFRD 15-36 ROOF DECK



SECTION PROPERTIES (Per Foot of Width)

| Base Steel Thickness (in.) | Weight G90 (psf) | Yield Stress (ksi) | Sec. Modulus | | Deflection Moment of Inertia I_{xd} (in ⁴) | Web Crippling Loads | | Web Crippling Data | | | |
|----------------------------|------------------|--------------------|--------------------------------------|--------------------------------------|--|---------------------|------------|--------------------|-------------------|------------------------|------------------------|
| | | | Midspan S_{pos} (in ³) | Support S_{neg} (in ³) | | P_e (lb) | P_i (lb) | P_{e1} End (lb) | P_{e2} End (lb) | P_{i1} Interior (lb) | P_{i2} Interior (lb) |
| | | | | | | | | | | | |
| 0.0300 | 1.69 | 33 | 0.190 | 0.188 | 0.172 | 547 | 1059 | 198 | 49.4 | 392 | 66.7 |
| 0.0360 | 2.02 | 33 | 0.232 | 0.239 | 0.215 | 764 | 1477 | 292 | 73.0 | 579 | 98.4 |
| 0.0480 | 2.67 | 33 | 0.316 | 0.323 | 0.293 | 1290 | 2492 | 538 | 135 | 1063 | 181 |
| 0.0600 | 3.32 | 33 | 0.398 | 0.400 | 0.365 | 1938 | 3740 | 861 | 215 | 1698 | 289 |

ALLOWABLE UNIFORMLY DISTRIBUTED LOADS (psf)

| SPAN LENGTH (ft) | MAX CO. SPAN (ft-in) | 1-SPAN | | | | 2-SPAN | | | | 3-SPAN | | | |
|------------------|----------------------|----------------------------|--------|--------|--------|----------------------------|--------|---------|--------|----------------------------|--------|--------|--------|
| | | BASE STEEL THICKNESS (in.) | | | | BASE STEEL THICKNESS (in.) | | | | BASE STEEL THICKNESS (in.) | | | |
| | | 0.0300 | 0.0360 | 0.0480 | 0.0600 | 0.0300 | 0.0360 | 0.0480 | 0.0600 | 0.0300 | 0.0360 | 0.0480 | 0.0600 |
| | | 6' 3" | 7' 8" | 10' 5" | 13' 1" | 7' 8" | 9' 5" | 12' 10" | 16' 2" | 7' 10" | 9' 7" | 13' 0" | 16' 5" |
| 5.0 | S | 100 | 122 | 166 | 210 | 99 | 126 | 170 | 210 | 124 | 158 | 213 | 263 |
| | D | 120 | 150 | 205 | 255 | 287 | 357 | 488 | 608 | 227 | 283 | 387 | 482 |
| 5.5 | S | 83 | 101 | 138 | 173 | 82 | 104 | 141 | 174 | 103 | 130 | 176 | 217 |
| | D | 90 | 113 | 154 | 192 | 215 | 269 | 367 | 457 | 171 | 213 | 291 | 362 |
| 6.0 | S | 69 | 85 | 116 | 146 | 69 | 88 | 118 | 146 | 86 | 110 | 148 | 183 |
| | D | 70 | 87 | 119 | 148 | 166 | 207 | 283 | 352 | 131 | 164 | 224 | 279 |
| 6.5 | S | 59 | 72 | 99 | 124 | 59 | 75 | 101 | 125 | 73 | 93 | 126 | 156 |
| | D | 55 | 68 | 93 | 116 | 130 | 163 | 222 | 277 | 103 | 129 | 176 | 219 |
| 7.0 | S | 51 | 62 | 85 | 107 | 51 | 64 | 87 | 107 | 63 | 80 | 109 | 134 |
| | D | 44 | 55 | 75 | 93 | 104 | 130 | 178 | 222 | 83 | 103 | 141 | 176 |
| 7.5 | S | 44 | 54 | 74 | 93 | 44 | 56 | 76 | 94 | 55 | 70 | 95 | 117 |
| | D | 36 | 44 | 61 | 76 | 85 | 106 | 145 | 180 | 67 | 84 | 115 | 143 |
| 8.0 | S | 39 | 48 | 65 | 82 | 39 | 49 | 67 | 82 | 48 | 62 | 83 | 103 |
| | D | 29 | 37 | 50 | 62 | 70 | 87 | 119 | 148 | 55 | 69 | 95 | 118 |
| 8.5 | S | 35 | 42 | 58 | 73 | 34 | 44 | 59 | 73 | 43 | 55 | 74 | 91 |
| | D | 25 | 31 | 42 | 52 | 58 | 73 | 99 | 124 | 46 | 58 | 79 | 98 |
| 9.0 | S | 31 | 38 | 51 | 65 | 31 | 39 | 53 | 65 | 38 | 49 | 66 | 81 |
| | D | 21 | 26 | 35 | 44 | 49 | 61 | 84 | 104 | 39 | 49 | 66 | 83 |
| 9.5 | S | 28 | 34 | 46 | 58 | 27 | 35 | 47 | 58 | 34 | 44 | 59 | 73 |
| | D | 18 | 22 | 30 | 37 | 42 | 52 | 71 | 89 | 33 | 41 | 56 | 70 |
| 10.0 | S | 25 | 31 | 42 | 52 | 25 | 32 | 43 | 53 | 31 | 39 | 53 | 66 |
| | D | 15 | 19 | 26 | 32 | 36 | 45 | 61 | 76 | 28 | 35 | 48 | 60 |
| 10.5 | S | 23 | 28 | 38 | 48 | 23 | 29 | 39 | 48 | 28 | 36 | 48 | 60 |
| | D | 13 | 16 | 22 | 28 | 31 | 39 | 53 | 66 | 25 | 31 | 42 | 52 |
| 11.0 | S | 21 | 25 | 34 | 43 | 21 | 26 | 35 | 43 | 26 | 33 | 44 | 54 |
| | D | 11 | 14 | 19 | 24 | 27 | 34 | 46 | 57 | 21 | 27 | 36 | 45 |
| 11.5 | S | 19 | 23 | 31 | 40 | 19 | 24 | 32 | 40 | 23 | 30 | 40 | 50 |
| | D | 10 | 12 | 17 | 21 | 24 | 29 | 40 | 50 | 19 | 23 | 32 | 40 |
| 12.0 | S | 17 | 21 | 29 | 36 | 17 | 22 | 30 | 37 | 22 | 27 | 37 | 46 |
| | D | 9 | 11 | 15 | 18 | 21 | 26 | 35 | 44 | 16 | 20 | 28 | 35 |

- Notes:**
- 1 Based on ASTM A 653 structural steel.
 - 2 Values in row "S" are based on strength.
 - 3 Values in row "D" are based on deflection of SPAN LENGTH/180.
 - 4 P_e = Allowable end web crippling load based on $N = 1.5$ in.
 - 5 P_i = Allowable interior web crippling load based on $N = 3.0$ in.
 - 6 If bearing lengths are less than specified, see Example for use of web crippling data.
 - 7 MAX CO. SPAN = Maximum construction span based on 200 lb concentrated load per foot of deck (SDI).
 - 8 Allowable Strength Design principles were used in accordance with AISI S100-16.
 - 9 Prepared by Dr. R.M. Schuster, Distinguished Professor Emeritus, University of Waterloo.