

Section Properties

(Per Foot of Width)

| Base Steel Thickness (in.) | Weight G90 (psf) | Yield Stress (ksi) | Section Modulus | | Deflection Moment of Inertia Mid Span (in ⁴) | Specified Web Crippling Data (lb) | | | |
|-------------------------------|---------------------|-----------------------|--------------------------------|-------------------------------|--|-----------------------------------|------------|-----------------|-----------------|
| | | | Mid Span (in ³) | Support (in ³) | | End Pe1 | End Pe2 | Interior Pi1 | Interior Pi2 |
| 0.0135 | 0.73 | 80 | 0.0340 | 0.0278 | 0.0455 | 33.6 | 8.41 | 66.8 | 11.4 |
| 0.0150 | 0.80 | 33 | 0.0428 | 0.0364 | 0.0564 | 20.1 | 5.02 | 39.8 | 6.77 |
| 0.0180 | 0.95 | 50 | 0.0509 | 0.0432 | 0.0673 | 45.8 | 11.5 | 90.3 | 15.4 |
| 0.0240 | 1.25 | 33 | 0.0777 | 0.0674 | 0.0938 | 57.0 | 14.3 | 112 | 19.0 |
| 0.0300 | 1.55 | 33 | 0.101 | 0.0867 | 0.117 | 92.6 | 23.2 | 181 | 30.7 |

Live Load Factor = 1.5; Importance Factor (I_{w-SLS}) = 0.90; Importance Factor (I_{w-ULS}) = 0.80

Load Table

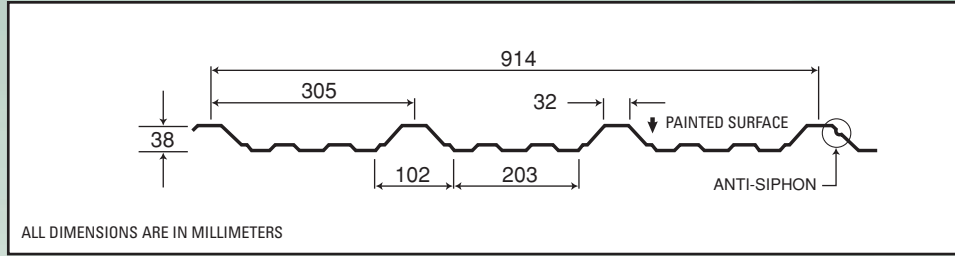
Maximum Specified Uniformly Distributed Loads in psf

| Span (in.) | | 1-Span Base Steel Thickness (in.) | | | | | 2-Span Base Steel Thickness (in.) | | | | | 3-Span Base Steel Thickness (in.) | | | | |
|---------------|---|--------------------------------------|--------|--------|--------|--------|--------------------------------------|--------|--------|--------|--------|--------------------------------------|--------|--------|--------|--------|
| | | 0.0135 | 0.0150 | 0.0180 | 0.0240 | 0.0300 | 0.0135 | 0.0150 | 0.0180 | 0.0240 | 0.0300 | 0.0135 | 0.0150 | 0.0180 | 0.0240 | 0.0300 |
| 24 | S | 263 | 176 | 318 | 321 | 418 | 210 | 150 | 270 | 278 | 358 | 239 | 188 | 337 | 347 | 447 |
| | D | 551 | 683 | 816 | 1136 | 1419 | 1322 | 1639 | 1958 | 2727 | 3405 | 1041 | 1291 | 1542 | 2148 | 2681 |
| 36 | S | 132 | 78 | 141 | 143 | 186 | 108 | 67 | 120 | 123 | 159 | 135 | 83 | 150 | 154 | 199 |
| | D | 163 | 202 | 242 | 337 | 420 | 392 | 486 | 580 | 808 | 1009 | 308 | 382 | 457 | 636 | 794 |
| 42 | S | 97 | 58 | 104 | 105 | 137 | 79 | 49 | 88 | 91 | 117 | 99 | 61 | 110 | 113 | 146 |
| | D | 103 | 127 | 152 | 212 | 265 | 247 | 306 | 365 | 509 | 635 | 194 | 241 | 288 | 401 | 500 |
| 48 | S | 75 | 44 | 80 | 80 | 105 | 61 | 38 | 67 | 69 | 89 | 76 | 47 | 84 | 87 | 112 |
| | D | 69 | 85 | 102 | 142 | 177 | 165 | 205 | 245 | 341 | 426 | 130 | 161 | 193 | 268 | 335 |
| 54 | S | 59 | 35 | 63 | 63 | 83 | 48 | 30 | 53 | 55 | 71 | 60 | 37 | 67 | 69 | 88 |
| | D | 48 | 60 | 72 | 100 | 125 | 116 | 144 | 172 | 239 | 299 | 91 | 113 | 135 | 189 | 235 |
| 60 | S | 48 | 28 | 51 | 51 | 67 | 39 | 24 | 43 | 44 | 57 | 49 | 30 | 54 | 56 | 72 |
| | D | 35 | 44 | 52 | 73 | 91 | 85 | 105 | 125 | 175 | 218 | 67 | 83 | 99 | 137 | 172 |
| 66 | S | 39 | 23 | 42 | 42 | 55 | 32 | 20 | 36 | 37 | 47 | 40 | 25 | 45 | 46 | 59 |
| | D | 26 | 33 | 39 | 55 | 68 | 64 | 79 | 94 | 131 | 164 | 50 | 62 | 74 | 103 | 129 |
| 72 | S | 33 | 20 | 35 | 36 | 46 | 27 | 17 | 30 | 31 | 40 | 34 | 21 | 37 | 39 | 50 |
| | D | 20 | 25 | 30 | 42 | 53 | 49 | 61 | 73 | 101 | 126 | 39 | 48 | 57 | 80 | 99 |
| 78 | S | 28 | 17 | 30 | 30 | 40 | 23 | 14 | 26 | 26 | 34 | 29 | 18 | 32 | 33 | 42 |
| | D | 16 | 20 | 24 | 33 | 41 | 39 | 48 | 57 | 79 | 99 | 30 | 38 | 45 | 63 | 78 |
| 84 | S | 24 | 14 | 26 | 26 | 34 | 20 | 12 | 22 | 23 | 29 | 25 | 15 | 28 | 28 | 36 |
| | D | 13 | 16 | 19 | 27 | 33 | 31 | 38 | 46 | 64 | 79 | 24 | 30 | 36 | 50 | 63 |
| 90 | S | 21 | 13 | 23 | 23 | 30 | 17 | 11 | 19 | 20 | 25 | 22 | 13 | 24 | 25 | 32 |
| | D | 10 | 13 | 15 | 22 | 27 | 25 | 31 | 37 | 52 | 65 | 20 | 24 | 29 | 41 | 51 |
| 96 | S | | 11 | 20 | 20 | 26 | 15 | | 17 | 17 | 22 | 19 | 12 | 21 | 22 | 28 |
| | D | | 11 | 13 | 18 | 22 | 21 | | 31 | 43 | 53 | 16 | 20 | 24 | 34 | 42 |

Notes:

- Steel conforms to ASTM A653.
- Section properties are in accordance with CSA-S136-07.
- Values in row "S" are based on strength.
- Values in row "D" are based on a deflection limit of 1/180 of the span.
- Web crippling not included in strength values. See example calculation in notes to designer.
- Contact the sales department for stocked colours and gauges.
- The load table contained on this data sheet was prepared by Dr. R.M. Schuster P.Eng. Professor Emeritus of Structural Engineering, University of Waterloo, Ontario, Canada.





Section Properties

(Per Metre of Width)

| Base Steel Thickness (mm) | Mass Z275 (kg/m ²) | Yield Stress MPa | Section Modulus | | Deflection Moment of Inertia Mid Span (x 10 ⁶ mm ⁴) | Specified Web Crippling Data (kN) | | | |
|------------------------------|-----------------------------------|---------------------|---|--|---|-----------------------------------|---------|--------------|--------------|
| | | | Mid Span (x 10 ³ mm ³) | Support (x 10 ³ mm ³) | | End Pe1 | End Pe2 | Interior Pi1 | Interior Pi2 |
| 0.343 | 3.55 | 550 | 1.83 | 1.49 | 0.0621 | 0.489 | 0.122 | 0.972 | 0.165 |
| 0.381 | 3.91 | 230 | 2.30 | 1.95 | 0.0769 | 0.296 | 0.074 | 0.587 | 0.100 |
| 0.457 | 4.64 | 345 | 2.74 | 2.32 | 0.0919 | 0.669 | 0.167 | 1.32 | 0.224 |
| 0.610 | 6.09 | 230 | 4.17 | 3.62 | 0.128 | 0.841 | 0.210 | 1.65 | 0.280 |
| 0.762 | 7.54 | 230 | 5.45 | 4.66 | 0.160 | 1.37 | 0.342 | 2.66 | 0.453 |

Load Table

Live Load Factor = 1.5; Importance Factor (I_{w-SLS}) = 0.90; Importance Factor (I_{w-ULS}) = 0.80

Maximum Specified Uniformly Distributed Loads in kPa

| Span (mm) | | 1-Span Base Steel Thickness (mm) | | | | | 2-Span Base Steel Thickness (mm) | | | | | 3-Span Base Steel Thickness (mm) | | | | |
|--------------|---|-------------------------------------|-------|-------|-------|-------|-------------------------------------|-------|-------|-------|-------|-------------------------------------|-------|-------|-------|-------|
| | | 0.343 | 0.381 | 0.457 | 0.610 | 0.762 | 0.343 | 0.381 | 0.457 | 0.610 | 0.762 | 0.343 | 0.381 | 0.457 | 0.610 | 0.762 |
| 600 | S | 12.8 | 8.80 | 15.7 | 16.0 | 20.9 | 10.2 | 7.48 | 13.3 | 13.9 | 17.9 | 11.6 | 9.35 | 16.7 | 17.3 | 22.3 |
| | D | 27.7 | 34.3 | 41.0 | 57.1 | 71.2 | 66.4 | 82.2 | 98.3 | 137 | 171 | 52.3 | 64.7 | 77.4 | 108 | 135 |
| 800 | S | 8.27 | 4.95 | 8.85 | 9.00 | 11.8 | 6.75 | 4.21 | 7.50 | 7.80 | 10.0 | 8.43 | 5.26 | 9.38 | 9.75 | 12.6 |
| | D | 11.7 | 14.5 | 17.3 | 24.1 | 30.1 | 28.0 | 34.7 | 41.5 | 57.8 | 72.1 | 22.1 | 27.3 | 32.7 | 45.5 | 56.8 |
| 1000 | S | 5.29 | 3.17 | 5.66 | 5.76 | 7.52 | 4.32 | 2.69 | 4.80 | 4.99 | 6.43 | 5.40 | 3.37 | 6.00 | 6.24 | 8.03 |
| | D | 5.98 | 7.40 | 8.85 | 12.3 | 15.4 | 14.3 | 17.8 | 21.2 | 29.6 | 36.9 | 11.3 | 14.0 | 16.7 | 23.3 | 29.1 |
| 1200 | S | 3.67 | 2.20 | 3.93 | 4.00 | 5.22 | 3.00 | 1.87 | 3.33 | 3.47 | 4.46 | 3.75 | 2.34 | 4.17 | 4.33 | 5.58 |
| | D | 3.46 | 4.28 | 5.12 | 7.13 | 8.91 | 8.30 | 10.3 | 12.3 | 17.1 | 21.4 | 6.54 | 8.09 | 9.68 | 13.5 | 16.8 |
| 1400 | S | 2.70 | 1.62 | 2.89 | 2.94 | 3.84 | 2.20 | 1.37 | 2.45 | 2.55 | 3.28 | 2.75 | 1.72 | 3.06 | 3.18 | 4.10 |
| | D | 2.18 | 2.70 | 3.22 | 4.49 | 5.61 | 5.23 | 6.47 | 7.74 | 10.8 | 13.5 | 4.12 | 5.10 | 6.09 | 8.49 | 10.6 |
| 1500 | S | 2.35 | 1.41 | 2.52 | 2.56 | 3.34 | 1.92 | 1.20 | 2.13 | 2.22 | 2.86 | 2.40 | 1.50 | 2.67 | 2.77 | 3.57 |
| | D | 1.77 | 2.19 | 2.62 | 3.65 | 4.56 | 4.25 | 5.26 | 6.29 | 8.76 | 10.9 | 3.35 | 4.14 | 4.95 | 6.90 | 8.62 |
| 1600 | S | 2.07 | 1.24 | 2.21 | 2.25 | 2.94 | 1.69 | 1.05 | 1.88 | 1.95 | 2.51 | 2.11 | 1.32 | 2.34 | 2.44 | 3.14 |
| | D | 1.46 | 1.81 | 2.16 | 3.01 | 3.76 | 3.50 | 4.34 | 5.18 | 7.22 | 9.02 | 2.76 | 3.41 | 4.08 | 5.69 | 7.10 |
| 1800 | S | 1.63 | 0.98 | 1.75 | 1.78 | 2.32 | 1.33 | 0.83 | 1.48 | 1.54 | 1.98 | 1.67 | 1.04 | 1.85 | 1.93 | 2.48 |
| | D | 1.02 | 1.27 | 1.52 | 2.11 | 2.64 | 2.46 | 3.05 | 3.64 | 5.07 | 6.33 | 1.94 | 2.40 | 2.87 | 3.99 | 4.99 |
| 2000 | S | 1.32 | 0.79 | 1.42 | 1.44 | 1.88 | 1.08 | 0.67 | 1.20 | 1.25 | 1.61 | 1.35 | 0.84 | 1.50 | 1.56 | 2.01 |
| | D | 0.75 | 0.92 | 1.11 | 1.54 | 1.92 | 1.79 | 2.22 | 2.65 | 3.70 | 4.62 | 1.41 | 1.75 | 2.09 | 2.91 | 3.64 |
| 2200 | S | 1.09 | 0.65 | 1.17 | 1.19 | 1.55 | 0.89 | 0.56 | 0.99 | 1.03 | 1.33 | 1.12 | 0.70 | 1.24 | 1.29 | 1.66 |
| | D | 0.56 | 0.69 | 0.83 | 1.16 | 1.45 | 1.35 | 1.67 | 1.99 | 2.78 | 3.47 | 1.06 | 1.31 | 1.57 | 2.19 | 2.73 |
| 2400 | S | | 0.55 | 0.98 | 1.00 | 1.31 | 0.75 | | 0.83 | 0.87 | 1.12 | 0.94 | 0.58 | 1.04 | 1.08 | 1.39 |
| | D | | 0.54 | 0.64 | 0.89 | 1.11 | 1.04 | | 1.54 | 2.14 | 2.67 | 0.82 | 1.01 | 1.21 | 1.69 | 2.10 |

Notes:

- Steel conforms to ASTM A653M.
- Section properties are in accordance with CSA-S136-07.
- Values in row "S" are based on strength.
- Values in row "D" are based on a deflection limit of 1/180 of the span.
- Web crippling not included in strength values. See example calculation in notes to designer.
- Contact the sales department for stocked colours and gauges.
- The load table contained on this data sheet was prepared by Dr. R.M. Schuster P.Eng. Professor Emeritus of Structural Engineering, University of Waterloo, Ontario, Canada.

