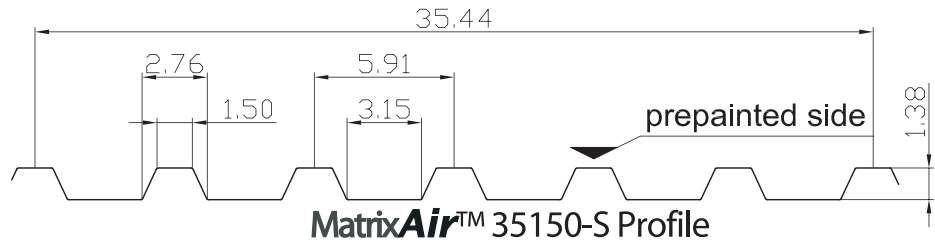




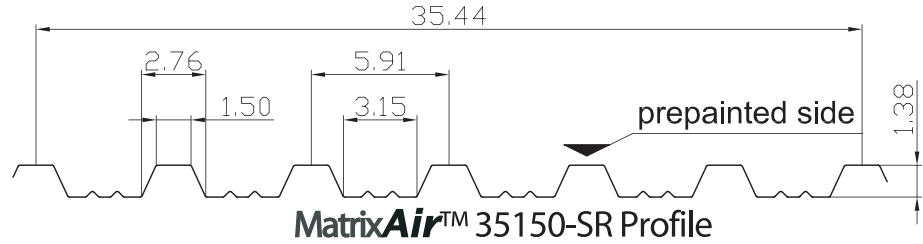
Cladding Specifications for MatrixAir™ Solar Air Heating Collector - imperial

35150-S, 35150-SR

35150-S (without small ribs) is available in base steel nominal thicknesses of 0.018", 0.024", 0.030", 0.036" and 0.048".



35150-SR (with small ribs) is available in base steel nominal thicknesses of 0.018", 0.024" and 0.030".



| Physical Properties (per foot width) In accordance with CSA Specification S136-01 | | | | | | | | | |
|--|--|--|--------------------------------|--------------------------------|--|---------------------|-----------------|-------------------|-------------------|
| Base steel nominal thickness (inches) | Nominal thickness with Z275 coating (inches) | Mass with Z275 coating (lb/ft ²) | Section Modulus | | Moment of inertia midspan (inches ⁴) | Factored Resistance | | | |
| | | | Midspan (inches ³) | Support (inches ³) | | Moment | | Reaction | |
| | | | | | | Midspan (lb-in) | Support (lb-in) | Exterior (pounds) | Interior (pounds) |
| 0.018 | 0.020 | 1.092 | 0.0885 | 0.0846 | 0.0860 | 2629.5 | 2513.5 | 267 | 356 |
| 0.024 | 0.026 | 1.413 | 0.1280 | 0.1226 | 0.1160 | 3800.7 | 3640.5 | 459 | 630 |
| 0.030 | 0.032 | 1.823 | 0.1668 | 0.1564 | 0.1448 | 4955.2 | 4645.9 | 699 | 980 |
| 0.036 | 0.038 | 2.064 | 0.1994 | 0.1907 | 0.1738 | 5922.0 | 5662.3 | 980 | 1405 |
| 0.048 | 0.050 | 2.716 | 0.2626 | 0.2582 | 0.2309 | 7800.2 | 7667.6 | 1658 | 2433 |

| Load Table Maximum Specified Uniformly Distributed Load in lb/ft ² (psf) | | | | | | | | | | | | | | | | |
|--|---|---------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|
| Support spacing | | 1-Span | | | | | 2-Span | | | | | 3-Span | | | | |
| | | Base steel nominal thickness (inches) | | | | | Base steel nominal thickness (inches) | | | | | Base steel nominal thickness (inches) | | | | |
| | | .018 | .024 | .030 | .036 | .048 | .018 | .024 | .030 | .036 | .048 | .018 | .024 | .030 | .036 | .048 |
| 4' - 0" | B | 73 | 106 | 138 | 164 | 217 | 48* | 84* | 129 | 157 | 213 | 54* | 96* | 148* | 197 | 266 |
| | D | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 4' - 6" | B | 58 | 83 | 109 | 130 | 171 | 42* | 75* | 102 | 124 | 168 | 48* | 85* | 127 | 155 | 210 |
| | D | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 5' - 0" | B | 47 | 68 | 88 | 105 | 139 | 38* | 65 | 83 | 101 | 136 | 43* | 76* | 103 | 126 | 170 |
| | D | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 5' - 6" | B | 39 | 56 | 73 | 87 | 115 | 35* | 53 | 68 | 83 | 113 | 39* | 67 | 85 | 104 | 141 |
| | D | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 6' - 0" | B | 32 | 47 | 61 | 73 | 96 | 31 | 45 | 57 | 70 | 95 | 36* | 56 | 72 | 87 | 118 |
| | D | R | R | 59 | 70 | 93 | R | R | R | R | R | R | R | R | R | R |
| 6' - 6" | B | 28 | 40 | 52 | 62 | 82 | 26 | 38 | 49 | 60 | 81 | 33 | 48 | 61 | 74 | 101 |
| | D | 27 | 37 | 46 | 55 | 73 | R | R | R | R | R | R | R | R | R | R |
| 7' - 0" | B | 24 | 34 | 45 | 54 | 71 | 23 | 33 | 42 | 51 | 70 | 28 | 41 | 53 | 64 | 87 |
| | D | 22 | 30 | 37 | 44 | 59 | R | R | R | R | R | R | R | R | R | R |
| 7' - 6" | B | 21 | 30 | 39 | 47 | 62 | - | 29 | 37 | 45 | 61 | 25 | 36 | 46 | 56 | 76 |
| | D | 18 | 24 | 30 | 36 | 48 | - | R | R | R | R | R | R | R | R | R |
| 8' - 0" | B | - | 26 | 34 | 41 | 54 | - | 25 | 32 | 39 | 53 | 22 | 32 | 40 | 49 | 67 |
| | D | - | 20 | 25 | 30 | 39 | - | R | R | R | R | R | R | R | R | R |
| 8' - 6" | B | - | 23 | 30 | 36 | 48 | - | 22 | 29 | 35 | 47 | - | 28 | 36 | 44 | 59 |
| | D | - | 17 | 21 | 25 | 33 | - | R | R | R | R | - | R | R | R | R |
| 9' - 0" | B | - | 21 | 27 | 32 | 43 | - | - | 25 | 31 | 42 | - | 25 | 32 | 39 | 53 |
| | D | - | 14 | 17 | 21 | 28 | - | - | R | R | R | - | R | R | R | 52 |

NOTES - LIMIT STATES DESIGN:

- Properties and loads are based on Grade 33 Steel with a minimum yield stress of 33,000 psi, and a maximum stress under factored loads of 29,700 psi.
- Row B indicates the load capacity based on strength. Strength capacity should be checked against [Specified Live Load] + [0.833 x Specified Dead Load].
- Row D indicates the load capacity based on deflection of 1/180th span. For allowable deflection of 1/90th span, values in Row D can be doubled, but must not exceed the value in Row B. The symbol "R" indicates the load for strength governs. Deflection capacity should be checked against Specified Load(s).
- An * indicates capacity has been reduced to account for web crippling.