

## EcoScreen: Econolap 3/4" Wall Panel Allowable Wind Loads (psf)

| 0.040" Aluminum - 10% Perforated |       |       |       |       |       |             |  |
|----------------------------------|-------|-------|-------|-------|-------|-------------|--|
| Span                             | Span  |       |       |       |       |             |  |
| Type                             | 1'-4" | 2'-0" | 2'-6" | 3'-0" | 3'-6" | 4'-0"       |  |
| Single                           | 250 * | 164 ь | 105 ь | 73 ь  | 53 ь  | <b>41</b> b |  |
| Double                           | 160 f | 107 f | 85 f  | 71 f  | 53 ь  | <b>41</b> b |  |
| Triple                           | 182 f | 121 f | 97 f  | 81 f  | 67 ь  | 51 ь        |  |

| 0.040" Aluminum - 40% Perforated |       |             |       |       |             |       |
|----------------------------------|-------|-------------|-------|-------|-------------|-------|
| Span                             | Span  |             |       |       |             |       |
| Type                             | 1'-4" | 2'-0"       | 2'-6" | 3'-0" | 3'-6"       | 4'-0" |
| Single                           | 123 ь | 54 ь        | 35 ь  | 24 ь  | 17 ь        | 13 ь  |
| Double                           | 104 f | 54 ь        | 35 ь  | 24 ь  | 17 ь        | 13 ь  |
| Triple                           | 118 f | <b>68</b> b | 43 ь  | 30 ь  | <b>22</b> b | 17 ь  |

| 0 0 0 0 |       |
|---------|-------|
| 0 0 0 0 | 00000 |
| 0 0 0 0 | 00000 |
| 0 0 0 0 | 00000 |
| 0 0 0 0 | 00000 |

1/8" diam. spaced 3/8" o.c.

3/8" diam. spaced 9/16" o.c.

## NOTES:

- 1. Allowable loads are based on uniform span lengths.
- 2. Panel material is ASTM B209 3003-H14 aluminum alloy.
- 3. Failure modes represented are:

f = fastener pullout/pullover

b = bending

d = deflection

\* = allowable load limited to 250 psf (contact Metl-Span if higher loads are required)

- 4. Panel properties are calculated per the Aluminum Association *Specification for Aluminum Structures* 2015 Edition and the provisions for Allowable Strength Design (ASD). For ≥20% perforated, equivalent properties of the perforated material are used in place of the properties of the solid material.
- 5. Fastening limitations are based on nominal 1/4" fasteners with 15mm-diameter combination washers; minimum three (3) fasteners per panel width (plus stitch fastener); and minimum 16 Gauge (50 ksi) steel structural girts. Allowable pullover reactions are 258 lb for <20% perforated and 167 lb for 40% perforated, based on fabricator test data with a safety factor of 2.5; allowable pullout reactions are based on fastener manufacturer test data with a safety factor of 2.5.
- 6. Deflection is based on an effective moment of inertia per *Specification for Aluminum Structures* applied to the weaker orientation; a deflection ratio of L/120; and the 10-year mean return interval wind speed per IBC 2018 Table 1604.3.
- 7. Panel coverage = 34-2/3" and weight = 0.41-0.62 psf.
- 8. Contact Metl-Span for additional perforation patterns or conditions not conforming to these notes.