

6612 Snowdrift Road | Allentown, PA 18106 | 610.395.8445

ISOLEREN TECHNICAL BULLETIN: ALLOWABLE UNIFORM LOADS TABLE ROOF

PRODUCT:

Isoleren Insulated Metal Roof Panels Isoleren Profiles: RL Width: 42-inch or narrower Thickness: 2.5, 3, 4, 5 and 6-inch Gauge: 26-gauge or heavier (facer and liner) Finish: Embossed or Smooth

ALLOWABLE UNIFORM LOADS (PSF):

| Panel Thickness (in) | Load Type | Span (ft) | | | | | | | | | | |
|-------------------------|------------------------|-----------|--------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 | 6.0 | 6.5 | 7.0 | 7.5 |
| 2.5 | Positive | 170.63 | 140.52 | 118.99 | 102.86 | 90.37 | 80.43 | 72.35 | 65.69 | 60.10 | 55.35 | 51.28 |
| | Deflection* | 132.45 | 108.50 | 91.28 | 78.29 | 68.15 | 60.03 | 53.38 | 47.84 | 43.16 | 39.16 | 35.70 |
| | Negative (wind uplift) | 78.05 | 69.38 | 63.19 | 58.55 | 53.65 | 48.29 | 43.90 | 40.24 | 37.14 | 34.49 | 32.19 |
| 3 | Positive | 201.27 | 165.96 | 140.67 | 121.71 | 106.99 | 95.27 | 85.73 | 77.83 | 71.21 | 65.58 | 60.75 |
| | Deflection* | 165.94 | 136.22 | 114.83 | 98.71 | 86.11 | 76.00 | 67.73 | 60.82 | 54.99 | 49.99 | 45.67 |
| | Negative (wind uplift) | 78.05 | 69.38 | 63.19 | 58.55 | 53.65 | 48.29 | 43.90 | 40.24 | 37.14 | 34.49 | 32.19 |
| 4 | Positive | 256.75 | 212.19 | 180.26 | 156.26 | 137.58 | 122.66 | 110.48 | 100.37 | 91.86 | 84.60 | 77.15 |
| | Deflection* | 215.85 | 177.85 | 150.52 | 129.90 | 113.77 | 100.83 | 90.20 | 81.33 | 73.81 | 67.37 | 61.79 |
| | Negative (wind uplift) | 78.05 | 69.38 | 63.19 | 58.55 | 53.65 | 48.29 | 43.90 | 40.24 | 37.14 | 34.49 | 32.19 |
| 5 | Positive | 303.53 | 251.26 | 213.79 | 185.61 | 163.65 | 146.07 | 131.70 | 119.74 | 109.65 | 101.03 | 93.60 |
| | Deflection* | 260.70 | 215.32 | 182.71 | 158.10 | 138.87 | 123.40 | 110.71 | 100.09 | 91.09 | 83.37 | 76.67 |
| | Negative (wind uplift) | 78.05 | 69.38 | 63.19 | 58.55 | 53.65 | 48.29 | 43.90 | 40.24 | 37.14 | 34.49 | 32.19 |
| 6 | Positive | 341.71 | 283.20 | 241.26 | 209.71 | 185.12 | 165.40 | 149.27 | 135.82 | 124.46 | 114.74 | 106.34 |
| | Deflection* | 300.47 | 248.58 | 211.32 | 183.22 | 161.25 | 143.60 | 129.09 | 116.96 | 106.66 | 97.82 | 90.14 |
| | Negative (wind uplift) | 78.05 | 69.38 | 63.19 | 58.55 | 53.65 | 48.29 | 43.90 | 40.24 | 37.14 | 34.49 | 32.19 |

NOTES:

- 1. Allowable loads were derived from test conducted in accordance with ASTM E1592 and ASTM E72.
- 2. All loads reflect standard fastening Isoleren RL clip with (2) ¼ 14-ga self-drilling shoulder fasteners.
- 3. The above loads reflect attachment to 14-ga. steel supports. Attachment to other substrates must be designed separately.
- 4. Allowable loads assume a minimum bearing surface of 1.5".
- 5. Allowable loads are for uniform span lengths.
- 6. Allowable loads reflect a deflection limit of L/240.
- 7. The panel self-weight was not added or subtracted from the allowable loads.
- 8. Above load table does not consider thermal effects.

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