



EM Ultra-Dek® Panel

12" Coverage

| SECTION PROPERTIES | | | | | | | | |
|--------------------|-------|--------|------------------|------------|-----------|------------------|------------|-----------|
| | | | NEGATIVE BENDING | | | POSITIVE BENDING | | |
| PANEL | Fy | WEIGHT | Ixe | Sxe | Maxo | Ixe | Sxe | Maxo |
| GAUGE | (KSI) | (PSF) | (IN.4/FT.) | (IN.3/FT.) | (KIP-IN.) | (IN.4/FT.) | (IN.3/FT.) | (KIP-IN.) |
| 26 | 50 | 1.23 | 0.1742 | 0.1109 | 3.3213 | 0.3409 | 0.1651 | 4.9427 |
| 24 | 50 | 1.48 | 0.2331 | 0.1540 | 4.6122 | 0.4262 | 0.2073 | 6.2066 |
| 22 | 50 | 1.86 | 0.3257 | 0.2237 | 6.6989 | 0.5512 | 0.2686 | 8.0412 |

NOTES:

- 1) All calculations for the properties of EM Ultra-Dek® panels are calculated in accordance with the 2012 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
- 2) Ixe is for deflection determination.
- 3) Sxe is for bending.
- 4) Maxo is allowable bending moment.
- 5) All values are for one foot of panel width.
- 6) This material is subject to change without notice. Please contact Exceptional® Metals at 1-800-248-0280 for most current data.

The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the North American Specification for the Design of Cold-Formed Steel Structural Members published by the American Iron and Steel Institute to facilitate design. This Specification contains the design criteria for cold-formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact Exceptional Metals.

Duro-Last Issue Date: 4/9/2015



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EM Ultra-Dek® Panel

12" Coverage

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

| 26 Gauge (Fy = 50 KSI) | | | | | | | | |
|------------------------|-----------|--------------|-------|-------|-------|-------|-------|-------|
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 293.8 | 244.8 | 209.8 | 183.6 | 162.7 | 131.8 | 108.9 |
| 2-SPAN | LIVE | 293.8 | 244.8 | 180.8 | 138.4 | 109.3 | 88.6 | 73.2 |
| 3-SPAN | LIVE | 293.8 | 244.8 | 209.8 | 173.0 | 136.7 | 110.7 | 91.5 |
| 4-SPAN | LIVE | 293.8 | 244.8 | 209.8 | 161.5 | 127.6 | 103.4 | 85.4 |
| 24 Gauge (Fy = 50 KSI) | | | | | | | | |
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 408.0 | 340.0 | 291.4 | 255.0 | 204.3 | 165.5 | 136.8 |
| 2-SPAN | LIVE | 408.0 | 340.0 | 251.0 | 192.2 | 151.8 | 123.0 | 101.6 |
| 3-SPAN | LIVE | 408.0 | 340.0 | 291.4 | 240.2 | 189.8 | 153.7 | 127.1 |
| 4-SPAN | LIVE | 408.0 | 340.0 | 291.4 | 224.3 | 177.2 | 143.5 | 118.6 |
| 22 Gauge (Fy = 50 KSI) | | | | | | | | |
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 593.9 | 494.7 | 424.2 | 335.1 | 264.7 | 214.4 | 177.2 |
| 2-SPAN | LIVE | 593.9 | 488.3 | 364.6 | 279.1 | 220.5 | 178.6 | 147.6 |
| 3-SPAN | LIVE | 593.9 | 494.7 | 424.2 | 348.9 | 275.7 | 223.3 | 184.5 |
| 4-SPAN | LIVE | 593.9 | 494.7 | 422.6 | 325.8 | 257.4 | 208.5 | 172.3 |

NOTES:

- 1) THE ABOVE LOADS ARE NOT FOR USE WHEN DESIGNING PANELS TO RESIST WIND UPLIFT.
- 2) Strength calculations based on the 2012 AISI Standard North American Specification for the Design of Cold-Formed Steel Structural Members.
- 3) Allowable loads are applicable for uniform loading and spans without overhangs.
- 4) LIVE load capacities are for those loads that push the panel against its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of L/180 under strength-level loads.
- 5) Panel pullover and screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
- 6) The use of any field seaming equipment or accessories including but not limited to clips, fasteners, and support plates (eave, backup, rake, etc.), other than provided by the manufacturer, may damage panels, void all warranties and will void all engineering data.
- 7) This material is subject to change without notice. Please contact Exceptional® Metals at 1-800-248-0280 for the most current data.

The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the North American Specification for the Design of Cold-Formed Steel Structural Members published by the American Iron and Steel Institute to facilitate design. This Specification contains the design criteria for cold-formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact Exceptional Metals.

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EM Ultra-Dek® Panel

18" Coverage

| SECTION PROPERTIES | | | | | | | | |
|--------------------|-------|--------|------------------|------------|-----------|------------------|------------|-----------|
| | | | NEGATIVE BENDING | | | POSITIVE BENDING | | |
| PANEL | Fy | WEIGHT | Ixe | Sxe | Maxo | Ixe | Sxe | Maxo |
| GAUGE | (KSI) | (PSF) | (IN.4/FT.) | (IN.3/FT.) | (KIP-IN.) | (IN.4/FT.) | (IN.3/FT.) | (KIP-IN.) |
| 26 | 50 | 1.09 | 0.1366 | 0.0929 | 2.7823 | 0.2686 | 0.1175 | 3.5185 |
| 24 | 50 | 1.32 | 0.1804 | 0.1273 | 3.8115 | 0.3372 | 0.1480 | 4.4295 |
| 22 | 50 | 1.66 | 0.2444 | 0.1780 | 5.3279 | 0.4365 | 0.1918 | 5.7424 |

NOTES:

- 1) All calculations for the properties of EM Ultra-Dek® panels are calculated in accordance with the 2012 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
- 2) Ixe is for deflection determination.
- 3) Sxe is for bending.
- 4) Maxo is allowable bending moment.
- 5) All values are for one foot of panel width.
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EM Ultra-Dek® Panel

18" Coverage

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

| 26 Gauge (Fy = 50 KSI) | | | | | | | | |
|------------------------|-----------|--------------|-------|-------|-------|-------|-------|-------|
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 195.8 | 163.2 | 139.9 | 122.4 | 108.8 | 93.8 | 77.5 |
| 2-SPAN | LIVE | 195.8 | 163.2 | 139.9 | 115.9 | 91.6 | 74.2 | 61.3 |
| 3-SPAN | LIVE | 195.8 | 163.2 | 139.9 | 122.4 | 108.8 | 92.7 | 76.6 |
| 4-SPAN | LIVE | 195.8 | 163.2 | 139.9 | 122.4 | 106.9 | 86.6 | 71.6 |
| 24 Gauge (Fy = 50 KSI) | | | | | | | | |
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 272.0 | 226.7 | 194.3 | 170.0 | 145.8 | 118.1 | 97.6 |
| 2-SPAN | LIVE | 272.0 | 226.7 | 194.3 | 158.8 | 125.5 | 101.6 | 84.0 |
| 3-SPAN | LIVE | 272.0 | 226.7 | 194.3 | 170.0 | 156.9 | 127.1 | 105.0 |
| 4-SPAN | LIVE | 272.0 | 226.7 | 194.3 | 170.0 | 146.5 | 118.6 | 98.0 |
| 22 Gauge (Fy = 50 KSI) | | | | | | | | |
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 395.9 | 329.9 | 282.8 | 239.3 | 189.1 | 153.1 | 126.6 |
| 2-SPAN | LIVE | 395.9 | 329.9 | 282.8 | 222.0 | 175.4 | 142.1 | 117.4 |
| 3-SPAN | LIVE | 395.9 | 329.9 | 282.8 | 247.5 | 219.3 | 177.6 | 146.8 |
| 4-SPAN | LIVE | 395.9 | 329.9 | 282.8 | 247.5 | 204.7 | 165.8 | 137.0 |

NOTES:

- 1) THE ABOVE LOADS ARE NOT FOR USE WHEN DESIGNING PANELS TO RESIST WIND UPLIFT.
- 2) Strength calculations based on the 2012 AISI Standard "North American Specification for the Design of Cold-Formed Steel Structural Members."
- 3) Allowable loads are applicable for uniform loading and spans without overhangs.
- 4) LIVE load capacities are for those loads that push the panel against its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of L/180 under strength-level loads.
- 5) Panel pullover and screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
- 6) The use of any field seaming equipment or accessories including but not limited to clips, fasteners, and support plates (eave, backup, rake, etc.), other than provided by the manufacturer, may damage panels, void all warranties and will void all engineering data.
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EM Ultra-Dek® Panel

24" Coverage

| SECTION PROPERTIES | | | | | | | | |
|--------------------|-------|--------|------------------|------------|-----------|------------------|------------|-----------|
| | | | NEGATIVE BENDING | | | POSITIVE BENDING | | |
| PANEL | Fy | WEIGHT | Ixe | Sxe | Maxo | Ixe | Sxe | Maxo |
| GAUGE | (KSI) | (PSF) | (IN.4/FT.) | (IN.3/FT.) | (KIP-IN.) | (IN.4/FT.) | (IN.3/FT.) | (KIP-IN.) |
| 26 | 50 | 1.02 | 0.1025 | 0.0694 | 2.0764 | 0.2202 | 0.0901 | 2.6987 |
| 24 | 50 | 1.23 | 0.1355 | 0.0951 | 2.8477 | 0.2803 | 0.1156 | 3.4612 |
| 22 | 50 | 1.56 | 0.1837 | 0.1332 | 3.9877 | 0.3640 | 0.1504 | 4.5020 |

NOTES:

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- 2) Ixe is for deflection determination.
- 3) Sxe is for bending.
- 4) Maxo is allowable bending moment.
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EM Ultra-Dek® Panel

24" Coverage

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

| 26 Gauge (Fy = 50 KSI) | | | | | | | | |
|------------------------|-----------|--------------|-------|-------|-------|-------|-------|-------|
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 146.9 | 122.4 | 104.9 | 91.8 | 81.6 | 72.0 | 59.5 |
| 2-SPAN | LIVE | 146.9 | 122.4 | 104.9 | 86.5 | 68.4 | 55.4 | 45.8 |
| 3-SPAN | LIVE | 146.9 | 122.4 | 104.9 | 91.8 | 81.6 | 69.2 | 57.2 |
| 4-SPAN | LIVE | 146.9 | 122.4 | 104.9 | 91.8 | 79.8 | 64.6 | 53.4 |
| 24 Gauge (Fy = 50 KSI) | | | | | | | | |
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 204.0 | 170.0 | 145.7 | 127.5 | 113.3 | 92.3 | 76.3 |
| 2-SPAN | LIVE | 204.0 | 170.0 | 145.7 | 118.7 | 93.8 | 75.9 | 62.8 |
| 3-SPAN | LIVE | 204.0 | 170.0 | 145.7 | 127.5 | 113.3 | 94.9 | 78.4 |
| 4-SPAN | LIVE | 204.0 | 170.0 | 145.7 | 127.5 | 109.4 | 88.6 | 73.2 |
| 22 Gauge (Fy = 50 KSI) | | | | | | | | |
| SPAN TYPE | LOAD TYPE | SPAN IN FEET | | | | | | |
| | | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| SINGLE | LIVE | 296.9 | 247.5 | 212.1 | 185.6 | 148.2 | 120.1 | 99.2 |
| 2-SPAN | LIVE | 296.9 | 247.5 | 212.1 | 166.2 | 131.3 | 106.3 | 87.9 |
| 3-SPAN | LIVE | 296.9 | 247.5 | 212.1 | 185.6 | 164.1 | 132.9 | 109.9 |
| 4-SPAN | LIVE | 296.9 | 247.5 | 212.1 | 185.6 | 153.2 | 124.1 | 102.6 |

NOTES:

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