

Perception Collection is a set of concealed fastened metal wall panels, each with unique geometric angles and rib patterns which can be combined to create a distinct design. Whether used in a vertical or horizontal wall application, the shadow effect evolves, building texture and changing the perception of the design as the day progresses. Ideal for fascia and equipment screen applications as well.

Perception Collection panels are available with a high performance clip, offering unlimited thermal movement while reducing chances of oil canning.



Shown with flush clip



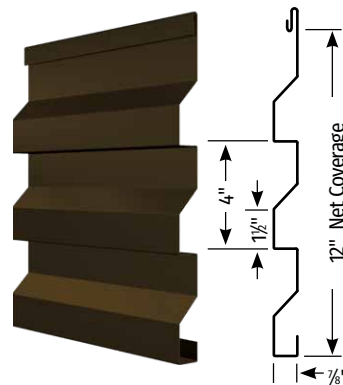
Shown with standoff clip



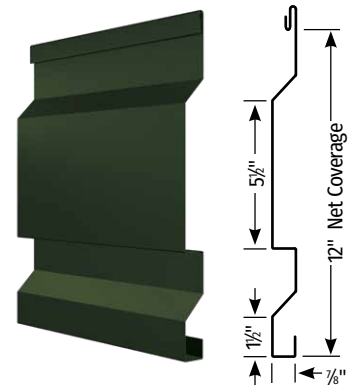
Shown as direct fastened

standard features

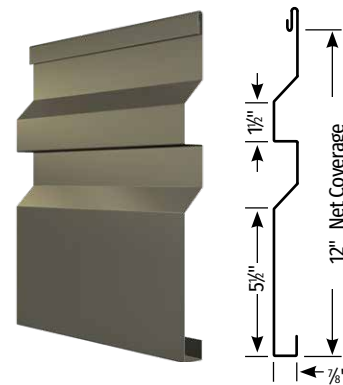
- Available in 22ga in standard finishes. 20ga available by special order.
- Refer to AEP Span Color Charts for full range of color options, prints, textures, finishes and paint systems.
- Custom colors, thick film primer and/or clear coat paint finishes available. Subject to 3,000 square feet minimum order.
- Custom manufactured sheet lengths from 5'-0" to 40'-0" maximum.
- ASTM E1592 (wind uplift), ASTM E283 (air infiltration), ASTM E331 (water infiltration) tested.
- Available in two attachment configurations - a directly attached fastening flange or clip interlocking hem. Two clip options enable panels to be installed flush to substrate or with a 1/2" standoff.
- Panels can be used in a rainscreen system.
- Panel evaluated by accredited third party. All structural performance data is contained within an IBC/IRC 2018 code compliance report (#ER-0309).



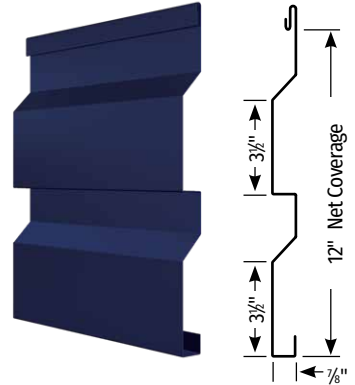
PC10-12



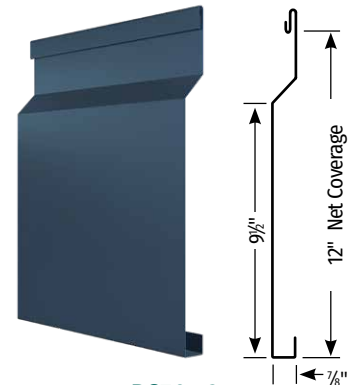
PC20-12



PC30-12



PC40-12



PC50-12

Design Patents: D735355, D734502, D736962, D750278, D734501

Outward Load Capacity

| Panel / Gauge | Maximum* Negative (Outward) Uniform Load Capacity (lbs/ft²) / Span (ft. - in.) | | | | | | |
|---|--|---------|---------|---------|---------|---------|---------|
| | 2' - 0" | 2' - 6" | 3' - 0" | 3' - 6" | 4' - 0" | 4' - 6" | 5' - 0" |
| PC10-12d, 20-24ga (DIRECT FASTENED) | 93 | 85 | 77 | 69 | 62 | 54 | 46 |
| PC20/30/40/50-12d, 20-24ga (DIRECT FASTENED) | 92 | 83 | 75 | 67 | 59 | 50 | 42 |
| PC10/20/30/40/50-12c, 24ga (CLIP ATTACHED) | 85 | 78 | 70 | 62 | 55 | 47 | 39 |
| PC10/20/30/40/50-12c, 20-22ga (CLIP ATTACHED) | 101 | 93 | 85 | 76 | 68 | 60 | 52 |

* Maximum allowable outward load capacities are shown and dependent upon fastener-to-substrate capacities. Refer to IAPMO-UES report #ER-0309 for specific product system capacities.

PC10-12

| Properties | | | | | | | | | Standard Finishes | |
|------------|---------------------------|-------------|---------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------|--|
| Gauge | Base Steel Thickness (in) | Yield (ksi) | Tensile (ksi) | Wt. (lbs/ft ²) | I+ (in ⁴ /ft) | S+ (in ³ /ft) | I- (in ⁴ /ft) | S- (in ³ /ft) | Metallic Coating | Paint System |
| 24 | 0.0232 | 50 | 65 | 1.49 | 0.0553 | 0.0855 | 0.0535 | 0.0959 | AZ50 | Cool Dura Tech™ 5000 or Cool Dura Tech™ mx |
| 22 | 0.0294 | 50 | 65 | 1.87 | 0.0711 | 0.1194 | 0.0692 | 0.1327 | AZ50 | |
| 20 | 0.0354 | 40 | 55 | 2.24 | 0.0860 | 0.1610 | 0.0853 | 0.1632 | G90 | |

| Gauge | Span | Condition | Positive (Inward) Uniform Load Capacity (lbs/ft ²) / Span (ft. - in.) | | | | | | |
|-------|-------------|-----------|---|---------|---------|---------|---------|---------|---------|
| | | | 2' - 0" | 3' - 0" | 4' - 0" | 5' - 0" | 6' - 0" | 7' - 0" | 8' - 0" |
| 24 | Single Span | ASD, W/Ω | 427 | 190 | 107 | 68 | 47 | 35 | 27 |
| | | L/180 | 605 | 179 | 76 | 39 | 22 | 14 | 9 |
| | Double Span | ASD, W/Ω | 271 | 181 | 116 | 74 | 52 | 38 | 29 |
| | | L/180 | 1456 | 432 | 182 | 93 | 54 | 34 | 23 |
| | Triple Span | ASD, W/Ω | 308 | 206 | 143 | 93 | 65 | 48 | 37 |
| | | L/180 | 1141 | 338 | 143 | 73 | 42 | 27 | 18 |
| 22 | Single Span | ASD, W/Ω | 596 | 265 | 149 | 95 | 66 | 49 | 37 |
| | | L/180 | 777 | 230 | 97 | 50 | 29 | 18 | 12 |
| | Double Span | ASD, W/Ω | 419 | 278 | 159 | 104 | 72 | 52 | 41 |
| | | L/180 | 1872 | 555 | 234 | 120 | 69 | 44 | 29 |
| | Triple Span | ASD, W/Ω | 476 | 317 | 197 | 128 | 90 | 66 | 50 |
| | | L/180 | 1467 | 435 | 183 | 94 | 54 | 34 | 23 |
| 20 | Single Span | ASD, W/Ω | 643 | 286 | 161 | 103 | 71 | 52 | 40 |
| | | L/180 | 940 | 278 | 117 | 60 | 35 | 22 | 15 |
| | Double Span | ASD, W/Ω | 471 | 273 | 157 | 101 | 71 | 52 | 40 |
| | | L/180 | 2263 | 671 | 283 | 145 | 84 | 53 | 35 |
| | Triple Span | ASD, W/Ω | 535 | 333 | 193 | 125 | 88 | 65 | 50 |
| | | L/180 | 1773 | 525 | 222 | 113 | 66 | 41 | 28 |

PC20-12

| Properties | | | | | | | | | Standard Finishes | |
|------------|---------------------------|-------------|---------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------|--|
| Gauge | Base Steel Thickness (in) | Yield (ksi) | Tensile (ksi) | Wt. (lbs/ft ²) | I+ (in ⁴ /ft) | S+ (in ³ /ft) | I- (in ⁴ /ft) | S- (in ³ /ft) | Metallic Coating | Paint System |
| 24 | 0.0232 | 50 | 65 | 1.40 | 0.0481 | 0.0600 | 0.0540 | 0.0752 | AZ50 | Cool Dura Tech™ 5000 or Cool Dura Tech™ mx |
| 22 | 0.0294 | 50 | 65 | 1.76 | 0.0632 | 0.0852 | 0.0708 | 0.1067 | AZ50 | |
| 20 | 0.0354 | 40 | 55 | 2.11 | 0.0790 | 0.1190 | 0.0877 | 0.1498 | G90 | |

| Gauge | Span | Condition | Positive (Inward) Uniform Load Capacity (lbs/ft ²) / Span (ft. - in.) | | | | | | |
|-------|-------------|-----------|---|---------|---------|---------|---------|---------|---------|
| | | | 2' - 0" | 3' - 0" | 4' - 0" | 5' - 0" | 6' - 0" | 7' - 0" | 8' - 0" |
| 24 | Single Span | ASD, W/Ω | 289 | 133 | 75 | 48 | 33 | 24 | 19 |
| | | L/180 | 525 | 156 | 66 | 34 | 19 | 12 | 8 |
| | Double Span | ASD, W/Ω | 181 | 121 | 90 | 58 | 41 | 30 | 23 |
| | | L/180 | 1265 | 375 | 158 | 81 | 47 | 30 | 20 |
| | Triple Span | ASD, W/Ω | 206 | 137 | 103 | 72 | 50 | 37 | 28 |
| | | L/180 | 991 | 294 | 124 | 63 | 37 | 23 | 15 |
| 22 | Single Span | ASD, W/Ω | 425 | 189 | 106 | 68 | 47 | 35 | 27 |
| | | L/180 | 690 | 204 | 86 | 44 | 26 | 16 | 11 |
| | Double Span | ASD, W/Ω | 279 | 186 | 126 | 82 | 58 | 42 | 33 |
| | | L/180 | 1662 | 493 | 208 | 106 | 62 | 39 | 26 |
| | Triple Span | ASD, W/Ω | 317 | 212 | 155 | 102 | 71 | 53 | 40 |
| | | L/180 | 1302 | 386 | 163 | 83 | 48 | 30 | 20 |
| 20 | Single Span | ASD, W/Ω | 475 | 211 | 119 | 76 | 53 | 39 | 30 |
| | | L/180 | 863 | 256 | 108 | 55 | 32 | 20 | 13 |
| | Double Span | ASD, W/Ω | 314 | 209 | 140 | 91 | 64 | 47 | 36 |
| | | L/180 | 2079 | 616 | 260 | 133 | 77 | 48 | 32 |
| | Triple Span | ASD, W/Ω | 357 | 238 | 171 | 113 | 80 | 59 | 45 |
| | | L/180 | 1629 | 483 | 204 | 104 | 60 | 38 | 25 |

PC30-12

| Properties | | | | | | | | | Standard Finishes | |
|------------|---------------------------|-------------|---------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------|--|
| Gauge | Base Steel Thickness (in) | Yield (ksi) | Tensile (ksi) | Wt. (lbs/ft ²) | I+ (in ⁴ /ft) | S+ (in ³ /ft) | I- (in ⁴ /ft) | S- (in ³ /ft) | Metallic Coating | Paint System |
| 24 | 0.0232 | 50 | 65 | 1.40 | 0.0481 | 0.0600 | 0.0540 | 0.0752 | AZ50 | Cool Dura Tech™ 5000 or Cool Dura Tech™ mx |
| 22 | 0.0294 | 50 | 65 | 1.76 | 0.0632 | 0.0852 | 0.0708 | 0.1066 | AZ50 | |
| 20 | 0.0354 | 40 | 55 | 2.11 | 0.0793 | 0.1190 | 0.0877 | 0.1498 | G90 | |

| Gauge | Span | Condition | Positive (Inward) Uniform Load Capacity (lbs/ft ²) / Span (ft. - in.) | | | | | | |
|-------|-------------|-----------|---|---------|---------|---------|---------|---------|---------|
| | | | 2' - 0" | 3' - 0" | 4' - 0" | 5' - 0" | 6' - 0" | 7' - 0" | 8' - 0" |
| 24 | Single Span | ASD, W/Ω | 289 | 133 | 75 | 48 | 33 | 24 | 19 |
| | | L/180 | 526 | 156 | 66 | 34 | 19 | 12 | 8 |
| | Double Span | ASD, W/Ω | 181 | 121 | 89 | 58 | 41 | 30 | 23 |
| | | L/180 | 1266 | 375 | 158 | 81 | 47 | 30 | 20 |
| | Triple Span | ASD, W/Ω | 206 | 137 | 103 | 72 | 50 | 37 | 28 |
| | | L/180 | 992 | 294 | 124 | 63 | 37 | 23 | 15 |
| 22 | Single Span | ASD, W/Ω | 425 | 189 | 106 | 68 | 47 | 35 | 27 |
| | | L/180 | 690 | 204 | 86 | 44 | 26 | 16 | 11 |
| | Double Span | ASD, W/Ω | 279 | 186 | 127 | 82 | 57 | 42 | 33 |
| | | L/180 | 1662 | 493 | 208 | 106 | 62 | 39 | 26 |
| | Triple Span | ASD, W/Ω | 317 | 212 | 156 | 102 | 71 | 53 | 40 |
| | | L/180 | 1302 | 386 | 163 | 83 | 48 | 30 | 20 |
| 20 | Single Span | ASD, W/Ω | 475 | 211 | 119 | 76 | 53 | 39 | 30 |
| | | L/180 | 867 | 257 | 108 | 55 | 32 | 20 | 14 |
| | Double Span | ASD, W/Ω | 314 | 209 | 140 | 91 | 64 | 47 | 36 |
| | | L/180 | 2088 | 619 | 261 | 134 | 77 | 49 | 33 |
| | Triple Span | ASD, W/Ω | 357 | 238 | 171 | 113 | 80 | 59 | 45 |
| | | L/180 | 1636 | 485 | 204 | 105 | 61 | 38 | 26 |

PC40-12

| Properties | | | | | | | | | Standard Finishes | |
|------------|---------------------------|-------------|---------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------|--|
| Gauge | Base Steel Thickness (in) | Yield (ksi) | Tensile (ksi) | Wt. (lbs/ft ²) | I+ (in ⁴ /ft) | S+ (in ³ /ft) | I- (in ⁴ /ft) | S- (in ³ /ft) | Metallic Coating | Paint System |
| 24 | 0.0232 | 50 | 65 | 1.40 | 0.0500 | 0.0614 | 0.0540 | 0.0752 | AZ50 | Cool Dura Tech™ 5000 or Cool Dura Tech™ mx |
| 22 | 0.0294 | 50 | 65 | 1.76 | 0.0667 | 0.0881 | 0.0708 | 0.1066 | AZ50 | |
| 20 | 0.0354 | 40 | 55 | 2.11 | 0.0846 | 0.1253 | 0.0877 | 0.1497 | G90 | |

| Gauge | Span | Condition | Positive (Inward) Uniform Load Capacity (lbs/ft ²) / Span (ft. - in.) | | | | | | |
|-------|-------------|-----------|---|---------|---------|---------|---------|---------|---------|
| | | | 2' - 0" | 3' - 0" | 4' - 0" | 5' - 0" | 6' - 0" | 7' - 0" | 8' - 0" |
| 24 | Single Span | ASD, W/Ω | 289 | 136 | 77 | 49 | 34 | 25 | 19 |
| | | L/180 | 547 | 162 | 68 | 35 | 20 | 13 | 9 |
| | Double Span | ASD, W/Ω | 181 | 121 | 89 | 58 | 41 | 30 | 23 |
| | | L/180 | 1317 | 390 | 165 | 84 | 49 | 31 | 21 |
| | Triple Span | ASD, W/Ω | 206 | 137 | 103 | 72 | 51 | 37 | 28 |
| | | L/180 | 1032 | 306 | 129 | 66 | 38 | 24 | 16 |
| 22 | Single Span | ASD, W/Ω | 440 | 195 | 110 | 70 | 49 | 36 | 27 |
| | | L/180 | 729 | 216 | 91 | 47 | 27 | 17 | 11 |
| | Double Span | ASD, W/Ω | 279 | 186 | 127 | 82 | 57 | 42 | 33 |
| | | L/180 | 1755 | 520 | 219 | 112 | 65 | 41 | 27 |
| | Triple Span | ASD, W/Ω | 317 | 212 | 155 | 102 | 71 | 53 | 41 |
| | | L/180 | 1375 | 407 | 172 | 88 | 51 | 32 | 21 |
| 20 | Single Span | ASD, W/Ω | 493 | 222 | 125 | 80 | 56 | 41 | 31 |
| | | L/180 | 924 | 274 | 116 | 59 | 34 | 22 | 14 |
| | Double Span | ASD, W/Ω | 314 | 209 | 140 | 91 | 64 | 47 | 36 |
| | | L/180 | 2227 | 660 | 278 | 143 | 82 | 52 | 35 |
| | Triple Span | ASD, W/Ω | 357 | 238 | 170 | 113 | 79 | 59 | 46 |
| | | L/180 | 1744 | 517 | 218 | 112 | 65 | 41 | 27 |

PC50-12

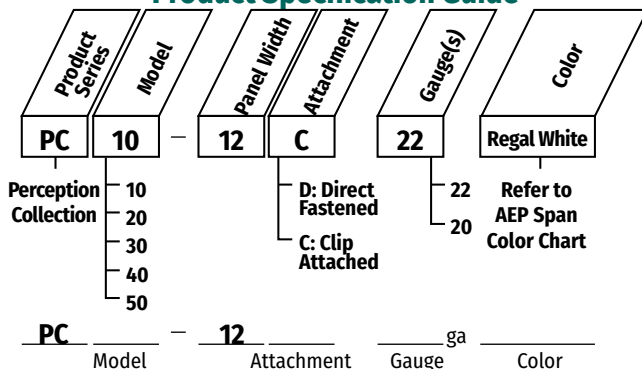
| Properties | | | | | | | | | Standard Finishes | |
|------------|---------------------------|-------------|---------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------|--|
| Gauge | Base Steel Thickness (in) | Yield (ksi) | Tensile (ksi) | Wt. (lbs/ft ²) | I+ (in ⁴ /ft) | S+ (in ³ /ft) | I- (in ⁴ /ft) | S- (in ³ /ft) | Metallic Coating | Paint System |
| 24 | 0.0232 | 50 | 65 | 1.30 | 0.0358 | 0.0322 | 0.0446 | 0.0479 | AZ50 | Cool Dura Tech™ 5000 or Cool Dura Tech™ mx |
| 22 | 0.0294 | 50 | 65 | 1.64 | 0.0483 | 0.0467 | 0.0603 | 0.0686 | AZ50 | |
| 20 | 0.0354 | 40 | 55 | 1.97 | 0.0630 | 0.0677 | 0.0770 | 0.0979 | G90 | |

| Gauge | Span | Condition | Positive (Inward) Uniform Load Capacity (lbs/ft ²) / Span (ft. - in.) | | | | | | | |
|-------|-------------|-----------|---|---------|---------|---------|---------|---------|---------|--|
| | | | 2' - 0" | 3' - 0" | 4' - 0" | 5' - 0" | 6' - 0" | 7' - 0" | 8' - 0" | |
| 24 | Single Span | ASD, W/Ω | 144 | 72 | 40 | 26 | 18 | 13 | 10 | |
| | | L/180 | 391 | 116 | 49 | 25 | 14 | 9 | 6 | |
| | Double Span | ASD, W/Ω | 90 | 60 | 45 | 36 | 25 | 19 | 14 | |
| | | L/180 | 942 | 279 | 118 | 60 | 35 | 22 | 15 | |
| | Triple Span | ASD, W/Ω | 103 | 69 | 51 | 41 | 31 | 23 | 18 | |
| | | L/180 | 738 | 219 | 92 | 47 | 27 | 17 | 12 | |
| 22 | Single Span | ASD, W/Ω | 221 | 104 | 58 | 37 | 26 | 19 | 15 | |
| | | L/180 | 527 | 156 | 66 | 34 | 20 | 12 | 8 | |
| | Double Span | ASD, W/Ω | 140 | 93 | 70 | 52 | 36 | 27 | 21 | |
| | | L/180 | 1270 | 376 | 159 | 81 | 47 | 30 | 20 | |
| | Triple Span | ASD, W/Ω | 159 | 106 | 79 | 63 | 44 | 33 | 26 | |
| | | L/180 | 995 | 295 | 124 | 64 | 37 | 23 | 16 | |
| 20 | Single Span | ASD, W/Ω | 246 | 120 | 68 | 43 | 30 | 22 | 17 | |
| | | L/180 | 688 | 204 | 86 | 44 | 25 | 16 | 11 | |
| | Double Span | ASD, W/Ω | 157 | 105 | 78 | 58 | 41 | 31 | 24 | |
| | | L/180 | 1658 | 491 | 207 | 106 | 61 | 39 | 26 | |
| | Triple Span | ASD, W/Ω | 178 | 119 | 89 | 71 | 51 | 38 | 29 | |
| | | L/180 | 1299 | 385 | 162 | 83 | 48 | 30 | 20 | |

| Inward Loads | Single Span | |
|--------------|-------------|--|
| | Double Span | |
| | Triple Span | |

NOTES:
 Tabulated values are for positive (inward) loading only.
 The W/Ω (ASD) values are based on allowable panel strength.
 L/180 values based on allowable service load deflections.
 The moments of inertia, I+ and I-, presented for determining deflection are: $(2I_{Effective} + I_{Gross})/3$
 Values are based on AISI S100-16/S1-18
 Specifications subject to change without notice.

Product Specification Guide



Oil Canning: All flat metal surfaces can display waviness commonly referred to as "oil canning". "Oil canning" is an inherent characteristic of steel products, not a defect, and therefore is not a cause for panel rejection.

