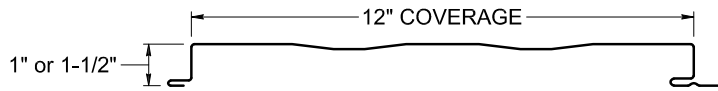




ICC
EVALUATION
SERVICE®

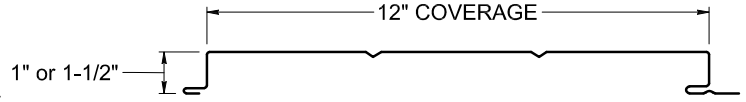
ICC-ESR #5046 with CBC-CRC Supplement

PANEL PROFILES



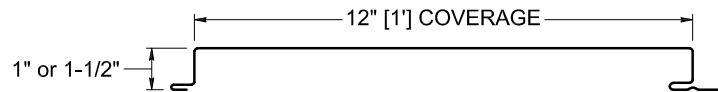
Now Available: STRIATIONS

Striations offer the best solution to help minimize oil canning



DOUBLE V-GROOVE (shown)

or Single V-Groove available




FLAT PAN

KEY FEATURES

- 12" coverage (For other widths, please inquire)
- 24, 22, 20 & 18 gauge Tru-gauge™
- .032 & .040 Aluminum
- Substrate: ASTM A653 / A792
- Custom Lengths 3' to 35' (20 & 18 ga - 3' to 20'-6")
(Inquire for longer or shorter lengths)
- 2' Shortcut capability *(Fee applicable)*
- Concealed Fasteners: fasteners cannot leak
- 6.16 sq. inch (4.2%) free air flow per lineal foot of perforated panel
- Versatile in wall and soffit applications
- Panel options: Vented, Striations, Single V-Groove, Double V-Groove, and Flat Pan
- "Oil canning" is an inherent characteristic of roof and wall products, and not a defect, which is not a cause for panel rejection

TESTING

-  ICC-ESR #5046 with CBC-CRC Supplement
- ASTM E1592 - Structural uniform static air pressure
- ASTM E283 Air Infiltration Siding
- ASTM E331 Water Infiltration Siding
- ASTM A653/A924 - G90 Galvanized
- ASTM A792 - Zinalume/Glavalume AZ-50/55
- ASTM B209 - Aluminum Substrate
- ASTM E2886 - Ember Penetration (Vented Soffit)

ASTM E 1680/E283 Air Penetration	ASTM E 1646/E331 Water Penetration
25 PSF<0.01 CFM/ft ² -PASS	25 PSF - Pass
Intertek Test Result M0877.01-901-44 R0	
Intertek Test Result M0877.01-901-44 R0	
STRUCTURAL TESTING ASTM E1592 AND E330	
Force Engineering 696-0-83T-19A, B	

WEIGHT CHART (Values based on 1" panels, inquire for 1-1/2")

SMOOTHWALL	WIDTH	24 GA STEEL	22 GA STEEL	.032 ALUM	.040 ALUM
THICKNESS		0.0236"	0.0285"	0.032"	0.040"
WEIGHT/LINFT	12"	1.324 LBS	1.598LBS	0627 LBS	0.784 LBS
WEIGHT/LSQFT	12"	1.324 LBS	1.598LBS	0627 LBS	0.784 LBS

NEGATIVE LOAD CHART WITH HIGH WIND CLIP

Width, in. Gauge Yield ksi Weight psf				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)				
				Top in Compression			Bottom in Compression			Negative Load				
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft	2'	2.5'	3'	3.5'	4'
12	24	50	1.31	0.0204	0.0241	0.0354	0.0332	0.0295	0.0388	140.5	119.7	98.9	78.1	57.3
12	22	50	1.61	0.0279	0.0322	0.0507	0.0429	0.0385	0.0502	156.1	135.3	114.5	93.7	72.9
12	20	33	1.86	0.0372	0.0418	0.0742	0.0531	0.0485	0.0633	156.1	135.3	114.5	93.7	72.9
12	18	33	2.42	0.0540	0.0586	0.0957	0.0700	0.0653	0.0853	156.1	135.3	114.5	93.7	72.9
12	0.032"	19	0.53	0.0640	0.0640	0.0310	0.0640	0.0640	0.0786	98.9	83.2	67.6	52.0	36.4
12	0.040"	19	0.76	0.0790	0.0790	0.3788	0.0790	0.0790	0.0966	98.9	83.2	67.6	52.0	36.4

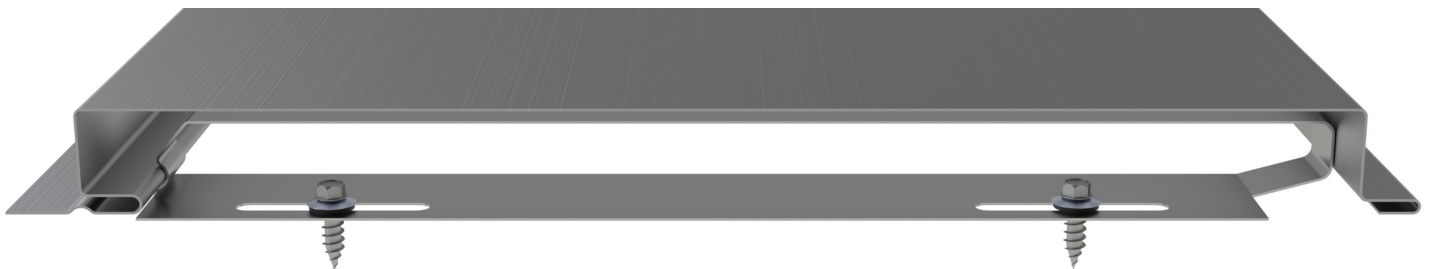
- Charted Load/Span values are based on ASTM E1592-02 / ASTM E1592-05 testing protocol. Intertek Test Result M0874.01-901-44
- Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by 2.00 Factor-of-Safety.
- Minimum recommended substrate (structure) recommendations:
 - o Open-framing (i.e.purlins) -16ga (design thickness=0.0566")
 - o Plywood/OSB - 15/32" or thicker is recommend to assure an effective degree of fastener thread engagement.
 - o Metal deck - 22 ga. (design thickness=0.0283")

POSITIVE LOAD CHART WITH HIGH WIND CLIP

Width, in. Gauge Yield ksi Weight psf				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)									
				Top in Compression			Bottom in Compression			Positive Load									
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'
12	24	50	1.89	0.0204	0.0241	0.0354	0.0332	0.0295	0.0388	263.6	131.8	87.9	55.3	35.4	24.6	18.1	13.8	10.9	
12	22	50	2.21	0.0279	0.0322	0.0507	0.0429	0.0385	0.0502	391.8	195.9	130.6	78.44	50.2	34.86	25.61	19.61	15.5	12.6
12	20	33	2.69	0.0372	0.0418	0.0742	0.0531	0.0485	0.0633	400.9	200.5	117.2	65.9	42.2	29.3	21.53	16.5	13.0	10.6
12	18	33	3.48	0.0540	0.0586	0.0957	0.0700	0.0653	0.0853	664.6	332.3	158.0	88.85	56.87	39.49	29.01	22.21	17.6	14.2
12	0.032"	19	0.52	0.0640	0.0640	0.0310	0.0640	0.0640	0.0786	47.3	23.6	15.8	11.8						
12	0.040"	19	1.14	0.0790	0.0790	0.3788	0.0790	0.0790	0.0966	73.6	36.8	24.6	18.4	14.7	12.3	10.52			

- Allowable loads for Steel panels are calculated in accordance with 2020 AISI S100 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
- The Versa-Span Panel when installed as a three-span condition with spans of 5 ft. on-center for Steel and 3.0 ft. on-center for Aluminum are capable of withstanding the minimum uniform distributed load of 20 psf (0.958 kPa) noted in Table 1607.1 of the IBC and a minimum concentrated load of 300 lbf (1.33 kN).
- When panels are installed over solid or closely fitted deck sheathing, the capacity is limited to the capacity of the underlying sheathing.

HIGH WIND PANEL ATTACHMENT



NEGATIVE LOAD CHART WITH STITCH SCREW

Width, in. Gauge Yield ksi Weight psf				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)				
				Top in Compression			Bottom in Compression			Negative Load				
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	2'	2.5'	3'	3.5'	4'
12 5/8"	24	50	1.89	0.0204	0.0241	0.0354	0.0332	0.0295	0.0388	62.1	59.6	57.1	54.6	52.1
12	22	50	2.21	0.0279	0.0322	0.0507	0.0429	0.0385	0.0502	78.1	72.9	67.7	62.5	57.3
12	20	33	2.69	0.0372	0.0418	0.0742	0.0531	0.0485	0.0633	78.1	72.9	67.7	62.5	57.3
12	18	33	3.48	0.0540	0.0586	0.0957	0.0700	0.0653	0.0853	78.1	72.9	67.7	62.5	57.3

- Charted Load/Span values are based on ASTM E1592-02 / ASTM E1592-05 testing protocol. Intertek Test Result M0874.01-901-44
- Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by 2.00 Factor-of-Safety.
- Minimum recommended substrate (structure) recommendations:
 - o Open-framing (i.e.purlins) -16ga (design thickness=0.0566")
 - o Plywood/OSB - 15/32" or thicker is recommend to assure an effective degree of fastener thread engagement.
 - o Metal deck - 22 ga. (design thickness=0.0283")

POSITIVE LOAD CHART WITH STITCH SCREW

Width, in. Gauge Yield ksi Weight psf				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)									
				Top in Compression			Bottom in Compression			Positive Load									
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'
12-5/8"	24	50	1.89	0.0204	0.0241	0.0354	0.0332	0.0295	0.0388	263.6	131.8	87.9	55.3	35.4	24.6	18.1	13.8	10.9	
12	24	50	1.89	0.0204	0.0241	0.0354	0.0332	0.0295	0.0388	263.6	131.8	87.9	55.3	35.4	24.6	18.1	13.8	10.9	
12	22	50	2.21	0.0279	0.0322	0.0507	0.0429	0.0385	0.0502	391.8	195.9	130.6	78.44	50.2	34.86	25.61	19.61	15.5	12.6
12	20	33	2.69	0.0372	0.0418	0.0742	0.0531	0.0485	0.0633	400.9	200.5	117.2	65.9	42.2	29.3	21.53	16.5	13.0	10.6
12	18	33	3.48	0.0540	0.0586	0.0957	0.0700	0.0653	0.0853	664.6	332.3	158.0	88.85	56.87	39.49	29.01	22.21	17.6	14.2
12	0.032"	19	0.52	0.0640	0.0640	0.0310	0.0640	0.0640	0.0786	47.3	23.6	15.8	11.8						
12	0.040"	19	1.14	0.0790	0.0790	0.3788	0.0790	0.0790	0.0966	73.6	36.8	24.6	18.4	14.7	12.3	10.52			

- Allowable loads for Steel panels are calculated in accordance with 2020 AISI S100 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
- The Versa-Span Panel when installed as a three-span condition with spans of 5 ft. on-center for Steel and 3.0 ft. on-center for Aluminum are capable of withstanding the minimum uniform distributed load of 20 psf (0.958 kPa) noted in Table 1607.1 of the IBC and a minimum concentrated load of 300 lbf (1.33 kN).
- When panels are installed over solid or closely fitted deck sheathing, the capacity is limited to the capacity of the underlying sheathing.

STITCH SCREW PANEL ATTACHMENT



NEGATIVE LOAD CHART WITH HIGH WIND CLIP

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)								
Width, in.	Gauge	Yield ksi	Weight psf	Top In Compression			Bottom In Compression			Negative Load								
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	1'	1.5'	2'	2.5'	3'	3.5'	4'	4.5'	5'
12	24	50	1.32	0.0629	0.0741	0.0648	0.1015	0.0903	0.0808	156.1	141.9	127.6	113.4	99.2	84.9	70.7	56.4	42.2
12	22	50	1.60	0.0786	0.0916	0.0835	0.1235	0.1105	0.0993	156.1	143.8	131.4	119.1	106.7	94.4	82.0	69.7	57.3
12	20	33	1.94	0.1112	0.1264	0.1288	0.1635	0.1483	0.1346	156.1	143.8	131.4	119.1	106.7	94.4	82.0	69.7	57.3
12	18	33	2.35	0.1550	0.1724	0.1953	0.2150	0.1976	0.1796	156.1	143.8	131.4	119.1	106.7	94.4	82.0	69.7	57.3

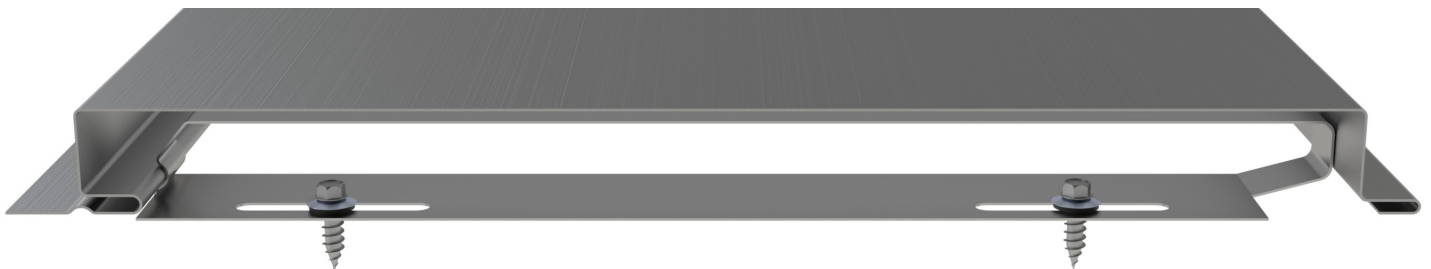
- Theoretical section properties for steel panels have been calculated per AISI S100 specification for the design of cold-formed steel structural members.
- Charted load/span values are based on ASTM E1592-05 (2017) testing protocol.
- Charted allowable uniform loads are based on the ultimate uniform load (per ASTM E1592-05 testing) divided by a 2.00 factor of safety.
- Panel substrate (structure) may include: open-framing, plywood/OSB, or metal deck.
- Tested assembly used 24GA. High wind clip.
- Tested assembly for aluminum used stitch screws at 24" o/c for 5ft. span and 12" o/c for 1ft. span.

POSITIVE LOAD CHART WITH HIGH WIND CLIP

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)									
Width, in.	Gauge	Yield ksi	Weight psf	Top in Compression			Bottom in Compression			Positive Load									
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'
12	24	50	1.32	0.0629	0.0741	0.0648	0.1015	0.0903	0.0808	705.5	352.7	180.0	101.3	64.8	45.0	33.1	25.3	20.0	16.2
12	22	50	1.60	0.0786	0.0916	0.0835	0.1235	0.1105	0.0993	949.1	474.6	231.9	130.5	83.5	58.0	42.6	32.6	25.8	20.9
12	20	33	1.94	0.1112	0.1264	0.1288	0.1635	0.1483	0.1346	891.8	445.9	238.5	134.2	85.9	59.6	43.8	33.5	26.5	21.5
12	18	33	2.35	0.1550	0.1724	0.1953	0.2150	0.1976	0.1796	1425.5	712.7	332.6	187.1	119.7	83.2	61.1	46.8	37.0	29.9
12	0.032"	19	0.63	0.2060	0.2060	0.5184	0.2060	0.2060	0.1817	108.2	54.1	36.1	27.1	21.6	18.0	15.5	13.5	10.8	
12	0.040"	19	0.78	0.2550	0.2550	0.6398	0.2550	0.2550	0.2233	166.4	83.2	55.5	41.6	33.3	27.7	23.8	19.9	15.7	12.7

- Theoretical section properties for steel panels have been calculated per 2020 AISI S100 specification for the design of cold formed steel structural members.
- Allowable load is calculated in accordance with 2020 AISI S100 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
- Allowable load does not address panel weight, fasteners, connection strength or support material.
- Allowable load includes web crippling.
- Allowable loads do not include a 1/3 stress increase for wind.
- When panels are installed over solid or closely fitted sheathing, the capacity is limited to the capacity of the underlying sheathing.

HIGH WIND PANEL ATTACHMENT



STEEL - NEGATIVE LOAD CHART WITH STITCH SCREW

STEEL				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)						
Width, in.	Gauge	Yield ksi	Weight psf	Top in Compression			Bottom in Compression			Negative Load						
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	2'	2.5'	3'	3.5'	4'	4.5'	5'
12	24	50	1.32	0.0629	0.0741	0.0648	0.1015	0.0903	0.0808	78.1	74.6	71.1	67.7	64.2	60.8	57.3
12	22	50	1.60	0.0786	0.0916	0.0835	0.1235	0.1105	0.0993	101.5	98.5	95.4	92.4	89.4	86.3	83.3
12	20	33	1.94	0.1112	0.1264	0.1288	0.1635	0.1483	0.1346	101.5	98.5	95.4	92.4	89.4	86.3	83.3
12	18	33	2.35	0.1550	0.1724	0.1953	0.2150	0.1976	0.1796	101.5	98.5	95.4	92.4	89.4	86.3	83.3

ALUMINUM - NEGATIVE LOAD CHART WITH STITCH SCREW

Aluminum				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various support spacings (i.e. span values)								
Width, in.	Gauge	Yield ksi	Weight psf	Top in Compression			Bottom in Compression			Negative Load								
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	1'	1.5'	2'	2.5'	3'	3.5'	4'	4.5'	5'
12	0.040"	19	0.78	0.2550	0.2550	0.6398	0.2550	0.2550	0.2233	180.0	163.2	146.3	129.4	112.5	95.6	78.8	61.9	45.0

- Charted Load/Span values are based on ASTM E1592-05 (2017) testing protocol.
- Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by 2.00 Factor-of-Safety.
- Panel substrate (structure) may include: open-framing, plywood/OSB/ or metal deck.
- Deflection limit consideration for positive (downward) loading is limited to a deflection ratio of L/180 of the span...where "L" is the span in inches.
- Tested assembly for steel used stitch screws at 24" o/c. Steel panel was tested at 2ft. and 5ft. spans
- Tested assembly for aluminum used stitch screws at 24" o/c for 5ft. span and 12" o/c for 1ft. span. Aluminum panel was tested at 1ft. and 5ft. spans.

POSITIVE LOAD CHART WITH STITCH SCREW

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)									
Width, in.	Gauge	Yield ksi	Weight psf	Top in Compression			Bottom in Compression			Positive Load									
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft.	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'
12	24	50	1.32	0.0629	0.0741	0.0648	0.1015	0.0903	0.0808	705.5	352.7	180.0	101.3	64.8	45.0	33.1	25.3	20.0	16.2
12	22	50	1.60	0.0786	0.0916	0.0835	0.1235	0.1105	0.0993	949.1	474.6	231.9	130.5	83.5	58.0	42.6	32.6	25.8	20.9
12	20	33	1.94	0.1112	0.1264	0.1288	0.1635	0.1483	0.1346	891.8	445.9	238.5	134.2	85.9	59.6	43.8	33.5	26.5	21.5
12	18	33	2.35	0.1550	0.1724	0.1953	0.2150	0.1976	0.1796	1425.5	712.7	332.6	187.1	119.7	83.2	61.1	46.8	37.0	29.9
12	0.032"	19	0.63	0.2060	0.2060	0.5184	0.2060	0.2060	0.1817	108.2	54.1	36.1	27.1	21.6	18.0	15.5	13.5	10.8	
12	0.040"	19	0.78	0.2550	0.2550	0.6398	0.2550	0.2550	0.2233	166.4	83.2	55.5	41.6	33.3	27.7	23.8	19.9	15.7	12.7

- Theoretical section properties for steel panels have been calculated per 2020 AISI S100 specification for the design of cold-formed steel structural members.
- Allowable load is calculated in accordance with 2020 AISI S100 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
- Allowable load does not address panel weight, fasteners, connection strength or support material.
- Allowable load includes web crippling.
- Allowable loads do not include a 1/3 stress increase for wind.
- When panels are installed over solid or closely fitted sheathing, the capacity is limited to the capacity of the underlying sheathing.

STITCH SCREW PANEL ATTACHMENT

