

FW-120 PANEL

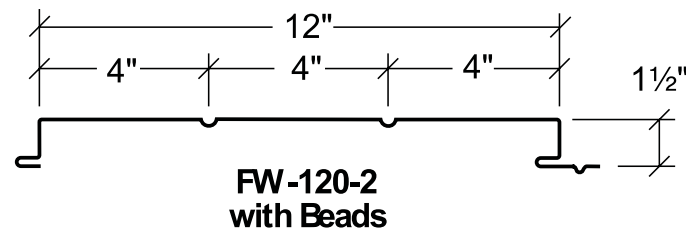
The FW-120 panel is a concealed fastener wall and liner panel that provides a flat appearance. FW-120 is commonly used for architectural, commercial, and industrial markets. The heavy gauge offering provides for large spanning capabilities, particularly in composite wall applications.

FEATURES & BENEFITS

- FW-120 is available in a flat profile with two beads, recommended to minimize appearance of oil canning, or no beads.
- The FW-120 Panel has been tested by a certified independent laboratory in accordance with ASTM test procedures for Air Infiltration and Water Penetration at the sidelap. Test results show no air leakage at 1.57PSF and no water penetration at 6.24PSF differential pressure.
- FW-120 carries Florida product approval.

SPECIFICATIONS

- APPLICATIONS: Wall
- COVERAGE WIDTHS: 12"
- PANEL ATTACHMENT: Concealed Fastening System
- GAUGES: 24 (standard); 22 (optional)
- FINISHES: Smooth (standard); Embossed (optional)
- COATINGS: Signature 200 (standard); Signature 300 (optional)



*Oil canning, a slight waviness inherent in all light gauge metal, may exist in the FW-120 panel. This minor waviness does not affect the finish or structural integrity of the panel and is therefore not cause for rejection.

CATEGORY	CHARACTERISTIC	TEST METHOD	PURPOSE	RESULT
Environmental	Air leakage	ASTM E283	Determines the air leakage rates of exterior windows, curtain walls, and doors under specified air pressure differences across the specimen	0.000 cfm/ft ² at 6.24 psf static pressure 0.113 cfm/ft ² at 20.00 psf static pressure
	Water Penetration	ASTM E331	Determines the resistance of exterior windows, curtain walls, skylights, and doors to water penetration when water is applied under uniform static air pressure difference	No uncontrolled water penetration through the panel joints at a static pressure of 13.24 psf
Structural	Negative Wind Loads	ASTM E1592	Provides a standard procedure to evaluate or confirm structural performance under uniform static air pressure difference	See Load Chart Section
	Positive Wind Load	AISI S100	North American Specification for the Design of Cold-Formed-Steel Structural Members	See Section Properties and Allowable Load Table Section
Roof Listings	Roof Performance-Florida Approval	ASTM E1592	Florida product approval is the approval of products and systems, which comprise the building envelope and structural frame, for compliance with the structural requirements of the Florida Building Code	Application Pending

SECTION PROPERTIES 12" WIDE, 50 KSI FW-120 WALL PANEL										
Gauge	Thickness In.	Weight PSF	Allowable Shear	Moment of Inertia	Top in Compression (Positive Bending)			Bottom in Compression (Negative Bending)		
			V _a kips/ft	I _x in ⁴ /ft	I _{xe} in ⁴ /ft	S _{xe} in ³ /ft	M ₃ in.kips/ft	I _{xe} in ⁴ /ft	S _{xe} in ³ /ft	M ₃ in.kips/ft
24	0.0230	1.342	1.00	0.1135	0.0483	0.0566	1.416	0.1070	0.0884	2.646
22	0.0285	1.662	1.22	0.1410	0.0648	0.0786	2.354	0.1350	0.1116	3.343

- Panel coverage width is 12"
- Section properties and allowables are calculated in accordance with North American Specification for the Design of Cold-Formed Steel Structural Members (2012 & 2016 Edition)
- I_x is full moment of inertia, I_{xe} +/- & S_{xe} +/- are effective moment of inertia and section modulus, M_a is allowable bending moment and V_a is allowable shear.
- All values are for one foot of panel width.
- Minimum deliverable bare steel thickness should not be less than 0.95 of design thickness.

PREPARATORY REQUIREMENTS: REFERENCE FW-120 INSTALLATION GUIDE

12" WIDE, 50 KSI FW-120 WALL PANEL										
Allowable Inward Loads (lb/ft)										
Guage	Span Condition		Span (ft)							
			2	2.5	3	3.5	4	4.5	5	6
24	SS	Stress	236.0	151.0	104.9	77.1	59.0	46.6		26.2
		L/180	527.7	270.2	156.4	98.5	66.0	46.3		19.5
	DS	Stress	385.8	258.0	183.9	137.3	105.4	83.2		46.8
		L/180	1270.1	650.3	376.3	237.0	158.8	111.5		47.0
	TS	Stress	382.1	244.6	169.8	124.8	95.5	75.5		42.5
		L/180	995.9	509.9	295.1	185.8	124.5	87.4		36.9
22	SS	Stress	392.3	251.1	174.4	128.1	98.1	77.5		43.6
		L/180	708.0	362.5	209.8	132.1	88.5	62.2		26.2
	DS	Stress	484.2	324.5	231.5	173.0	134.0	106.7		60.8
		L/180	1704.0	872.5	504.9	318.0	213.0	149.6	109.1	63.1
	TS	Stress	546.3	369.8	265.5	199.2	154.7	123.5	100.7	70.6
		L/180	1336.1	684.1	395.9	249.3	167.0	117.3	85.5	49.5

12" WIDE, 50 KSI FW-120 WALL PANEL										
Allowable Inward Loads (lb/ft)										
Guage	Span Condition		Span (ft)							
			2	2.5	3	3.5	4	4.5	5	6
24	SS	Stress	441.0	282.2	196.0	144.0	110.3	87.1	70.6	49.0
		L/180	1169.1	598.6	346.4	218.1	146.1	102.6	74.8	43.3
	DS	Stress	226.3	147.0	102.9	76.0	58.4	46.2	37.5	26.1
		L/180	2813.7	1440.6	833.7	525.0	351.7	247.0	180.1	104.2
	TS	Stress	261.1	170.2	119.5	88.3	67.9	53.8	43.7	30.4
		L/180	2206.1	1129.5	653.7	411.6	275.8	193.7	141.2	81.7