

Standing Seam 360

Panel Specifications

PRODUCT NAME

Kirby Building Systems Standing Seam 360 panel for roof applications.

PRODUCT DESCRIPTION

These standing seam panels float on a system of sliding clips that prevent damage from thermal expansion and contraction. Standing seam designs also eliminate 80% of the through fasteners found in other systems for greater weathertightness. Standing Seam 360 panels provide 24" width coverage with 2" high ribs – 3" including the seam. Minimum roof slope for the Standing Seam 360 roof panels is $\frac{1}{4}$ to 12.

Basic Use: A roof covering system for new or retrofit construction.

Materials: Standing Seam 360 panels are available in 24 and 22 gauge 50,000 psi in either G90 zinc-coated (galvanized) steel or aluminum-zinc alloy-coated (AZ50 or AZ55) steel. Pre-painted panels have Polyvinylidene Difluoride (PVDF) finish.

The Standing Seam 360 concealed (S3PC-_) clip is a two part assembly. The tab portion is die formed of aluminum-zinc alloy-coated steel. The base shall be die formed 12 gauge zinc-coated (galvanized) material. Available overall clip heights are 3-3/8", 4-1/2" & 5-1/2". The expansion capability is 3". For higher uplift values requirements, optional panel clips (S3PC-_R) or (S3PC-_P) are available. Standing Seam 360 sidelaps have factory applied mastic, SikaLastomer-511 or equal. Its composition is 85% solids by weight. Service temperature range is -60°F to +220°F. Endlaps, roof flashing laps, ridges and eave closures are sealed with tape mastic, Sika Sika-Tape TC-95 or non-toxic and non-volatile. Composition is 100% solid isobutylene tripolymer tape. Service temperature is -60°F to +212°F.

Caulk: Eaves, endlaps, ridge and eave closures are sealed with non-skinning butyl caulk, SikaLastomer-511 or equal. Its composition is 85% solids by weight. Service temperature range is -60°F to +220°F. All gutter and downspout joints, and roof accessories are sealed with polyurethane caulk, Sika SikaFlex 219LM or equal. It meets or exceeds Federal Specification TT-S-00230C, Type II, Class A.

All fasteners for panel to secondary framing and panel to panel will be one of the following EPDM washer head screws.

Fasteners: Roof fasteners shall be No. 1/4 -14 x 1 1/4" self-drilling carbon steel screws with a molded zinc alloy hex washer head.

Standing Seam 360 panel clips are attached to the purlins with the following fasteners: Self-drilling screws are carbon steel No. 12 x 1-1/4" hex head, cadmium or zinc plated.

Maximum "over the purlin" insulation thickness allowed with these panels is 4" without thermal blocks and 8" with thermal blocks and tall clips.

TECHNICAL DATA

The Standing Seam 360 panel has received a Class 90 Wind Uplift rating by Underwriters Laboratories when tested in accordance with test procedure UL 580. The Standing Seam 360 roof panel has been Factory Mutual and Miami-Dade County approved. This panel has been tested in accordance with Wind Uplift ASTM E1592 and CEGS 07416, Air Infiltration, ASTM E1680 and Water Penetration, ASTM E1646. This panel has been approved for SREF (SSTD-97) Impact Testing. This panel has received a Class A fire rating when tested in accordance with test procedure ASTM E108.

INSTALLATION

Panels are joined at the sidelap with an interlocking 360 degree seam standing one inch above the major rib. Panel sidelaps are seamed by a special electrical seaming machine. Sidelap sealer is factory applied. Roof systems are installed by Kirby Building Systems Authorized Builders. Installation may be incorporated with a light gauge structural system.

AVAILABILITY

For availability, contact:
KIRBY BUILDING SYSTEMS

WARRANTY

35 & 25 year paint finish warranties are available.
20 year weathertightness and 25 year aluminum zinc alloy warranties are also available.

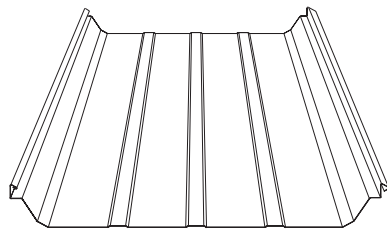
MAINTENANCE

Only normal routine maintenance is required over the life of the panels.

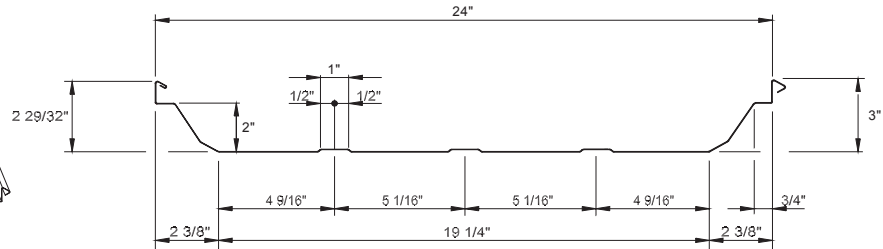
PRODUCT NOTES

A certain amount of waviness called "oilcanning" may exist in this panel. Minor waviness of the panel is not sufficient cause for rejection, because oilcanning does not affect the structural integrity of the panel. Standing Seam Panels in general are known for their tendency to rumble in high winds if insulation is not used. SS360 is no different. Under no circumstances should SS360 be used without blanket insulation or a thermal block between the panel and the purlin/bar joist.

Kirby Building Systems reserve the right to revise all standard specifications and information. Kirby Building Systems regularly updates its published "Standard Specifications" on the Kirby Building Systems website, www.kirbybuildingsystems.com, which supercede and replace any previously published standard specifications of Kirby Building Systems.



PANEL PROFILE



CROSS SECTION

Engineering Properties of American Buildings Company Standing Seam 360 Panel (ASD)

Designated Gage of Steel	Steel Yield KSI	Base Metal Thick. (In.)	Total Thick. (In.)	Panel Base Metal Weight (lbs. / ft. ²)	Top In Compression			Bottom In Compression			Fb KSI
					lx	Sx	Ma	lx	Sx	Ma	
					(in. ⁴ / ft.)	(in. ³ / ft.)	K-IN. / ft.	(in. ⁴ / ft.)	(in. ³ / ft.)	K-IN. / ft.	
24 Ga.	50	0.0225	0.0241	1.13	0.278	0.116	3.48	0.126	0.080	2.41	30
22 Ga.	50	0.0300	0.0316	1.50	0.372	0.159	4.76	0.177	0.111	3.32	30

Gage of Panel	No. of Spans	Load Type	Maximum Total Uniform Load in PSF															
			Span Lengths, Ft.															
			1.50		2.00		2.50		3.00		3.50		4.00		4.50		5.00	
24 Ga.	1	POS	1032	B	581	B	372	B	258	B	190	B	145	B	115	B	93	B
	2	POS	548	B+S	340	B+S	230	B+S	165	B+S	123	B+S	96	B+S	76	B+S	62	B+S
	3	POS	631	B+S	402	B+S	275	B+S	199	B+S	151	B+S	117	B+S	94	B+S	77	B+S
	4	POS	606	B+S	382	B+S	261	B+S	188	B+S	142	B+S	110	B+S	88	B+S	72	B+S
22 Ga.	1	POS	1409	B	793	B	507	B	352	B	259	B	198	B	157	B	127	B
	2	POS	798	B+S	487	B+S	325	B+S	231	B+S	173	B+S	133	B+S	106	B+S	86	B+S
	3	POS	930	B+S	580	B+S	393	B+S	282	B+S	212	B+S	164	B+S	131	B+S	107	B+S
	4	POS	889	B+S	551	B+S	371	B+S	266	B+S	199	B+S	154	B+S	123	B+S	100	B+S

- The panels are checked for bending (B), shear (S), combined bending and shear (B+S) and deflection (D). The controlling check is noted in the table. Deflection is limited to span/60.
- Section Properties are calculated in accordance with the 2012 *North American Specification for the Design of Cold-Formed Steel Structural Members*.
- Minimum yield strength of 24 and 22 gage steel is 50,000 psi.
- Steel panels are either aluminum-zinc alloy or G-90 coated. The base metal thickness is used in determining section properties.
- Positive load (POS) is applied inward toward the panel supports, and is applied to the outer surface of the full panel cross-section.