STANDING SEAM II
PANEL SPECIFICATIONS

1. PRODUCT NAME

American Standing Seam II panel for roof applications.

2. MANUFACTURER

AMERICAN BUILDINGS COMPANY
1150 State Docks Road
Eufaula, Alabama 36027
Phone: (334) 687-2032

3. 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 II panels provide 24" width coverage with 2" high ribs – 3" including the seam. Minimum roof slope for the Standing Seam II roof panels is ¼ to 12.

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

Materials: Standing Seam II panels are available in 24 or 22 gage 50,000 psi in either G90 zinc-coated (galvanized) steel or aluminum-zinc alloy-coated (AZ50 or AZ55) steel. Pre-painted panels have American Buildings Company's SmartKote (Kynar 500®) or Silicone Modified Polyester Finish.

The Standing Seam II concealed clip is a two part assembly. The tab portions are 2-1/2" wide, die formed of SAE 1050 high carbon spring steel and heat treated to Rockwell 45C to 50C with fluorocarbon coating for corrosion resistance, or 301 stainless steel. The base portion of the clip is 2-1/4" or 3-1/4" (for thermal blocks) in height. It is die formed from 12 gage, zinc-coated (galvanized) steel. Total expansion capability of the clip assembly is 2-1/2". For higher uplift value requirements, optional panel clip accessory, panel to clip fastening base (SSCH), which is 16 gage zinc-coated galvanized material is available. Standing Seam II sidelaps have factory applied mastic, SikaLastomer-511 or equal. Its composition is 85% solids by weight. Service temperature range is -60ºF to + 220ºF.

Endlaps, roof flashing laps, ridges and eave closures are sealed with tape mastic, Sika Sika-Tape TC-95 or equal. The material is non-staining, non-corrosive, non-toxic and non-volatile. Composition is 100% solid ethylene propylene copolymer tape. Service temperature is -60ºF to +212ºF.

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 + 220ºF. 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.

A. Premium roof fasteners shall be No. 14 x 1" self-drilling carbon steel screws with a molded zinc alloy hex washer head. Premium roof fasteners will be on all warranted roofs and all pre-finished roofs.

B. Standard roof fasteners shall be No. 14 x 1" self-drilling carbon steel screws with an integral hex washer head. Standard roof fasteners shall have a corrosive resistant coating over zinc plating. Standard roof fasteners shall be on unwarranted aluminum-zinc alloy-coated roofs only.

Standing Seam II 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 insulation thickness allowed with these panels is 4" without thermal blocks and 6" with thermal blocks and tall clips.

4. TECHNICAL DATA

The Standing Seam II panel has received a Class 90 Wind Uplift rating by Underwriters Laboratories when tested in accordance with test procedure UL 580. This panel has also been tested in accordance with Air Infiltration, ASTM E1680 and Water Penetration, ASTM E1646. This panel has received a Class A fire rating when tested in accordance with test procedure ASTM E108.

5. INSTALLATION

Panels are joined at the sidelap with an interlocking seam standing one inch above the major rib. Panel sidelaps are seamed by a special mechanical seaming machine. Sidelap sealer is factory applied. Roof systems are installed by American Buildings Company Authorized Builders. Installation may be incorporated with a light gage structural system.

6. AVAILABILITY

For availability, contact:

AMERICAN BUILDINGS COMPANY

7. WARRANTY

Thirty-five year material and twenty year weathertightness warranties are available.

8. MAINTENANCE

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

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9. TECHNICAL SERVICES

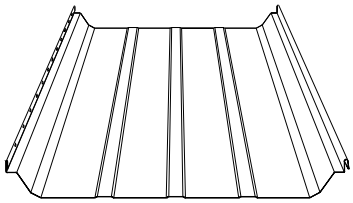
For information, contact:

AMERICAN BUILDINGS COMPANY

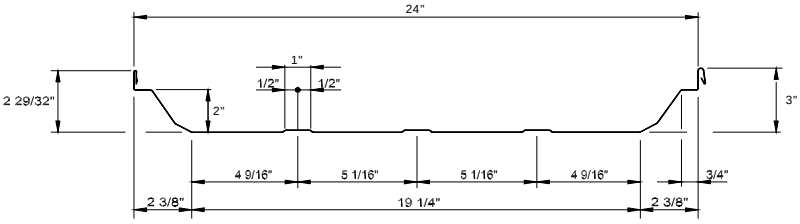
10. PRODUCT NOTES

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. SSII and SS360 are no different. Under no circumstances should SSII or SS360 be used without blanket insulation between the panel and the purlin/bar joist.

American Buildings Company reserves the right to revise all standard specifications and information. American Buildings Company regularly updates its published "Standard Specifications" on the American Buildings web site, www.americanbuildings.com, which supercede and replace any previously published standard specifications of American Buildings Company.



PANEL PROFILE



CROSS SECTION

Engineering Properties of American Buildings Company Standing Seam II Panel											
Designated Gage of Steel	Steel Yield KSI	Base Metal Thick. (In.)	Total Thick. (In.)	Panel Weight (lbs. / ft.^{2})	Top In Compression			Bottom In Compression			Fb KSI
					Ix (In.^{4} / ft.)	Sx (In.^{3} / ft.)	Ma K-IN.	Ix (In.^{4} / ft.)	Sx (In.^{3} / ft.)	Ma K-IN.	
24 Ga.	50	0.0225	0.0241	1.2	0.276	0.111	3.33	0.129	0.079	2.37	30
22 Ga.	50	0.0300	0.0316	1.58	0.371	0.152	4.56	0.180	0.108	3.24	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	734	460	313	225	169	132	105	86
	2	POS	549	339	228	163	122	95	75	61
	3	POS	634	401	274	198	149	116	93	76
	4	POS	608	381	259	187	140	109	87	71
22 Ga.	1	POS	1070	658	441	315	236	183	145	118
	2	POS	792	480	320	227	169	131	104	85
	3	POS	927	575	387	277	208	161	129	105
	4	POS	885	545	366	261	195	151	121	98

1. The panels were checked for bending, shear, combined bending and shear, and deflection. Deflection was limited to span/150
2. Section Properties have been calculated in accordance with the 2001 *North American Specification for the Design of Cold-Formed Steel Structural Members.*
3. Minimum yield strength of 24 and 22 gage steel is 50,000 psi.
4. Steel panels are either aluminum-zinc alloy or G-90 coated. The base metal thickness was used in determining section properties.
5. Positive load (POS) is applied inward toward the panel supports and is applied to the outer surface of the full panel cross-section.