AMERICAN BUILDINGS
A NUCOR COMPANY

SEAM-LOC
PANEL SPECIFICATIONS

1. PRODUCT NAME

   American Seam Loc panel for roof applications.

2. MANUFACTURER

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

3. PRODUCT DESCRIPTION

   These architectural standing seam panels, available with optional minor ribs, are connected with a 1 ¾" high snapped seam and are available in 12", 16" and 18" width coverage. They are designed to be utilized over substrates but can also be used over open structural framing. Minimum roof slope for the Seam Loc panel is 3:12.
   Basic Use: A roof covering system for new or retrofit construction.
   Materials:. Seam Loc 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 SmartKote® (PVDF) Finish.
   Panel clips for the Seam Loc panels are a nominal 1 3/4" in height and 3 3/4" in width (UL 90) and 1 3/4" in height and 2" in width (Std.) die formed 18 gage zinc-coated (galvanized) steel.
   Seam Loc roof panel 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.
   Roof flashing laps, ridges, and eaves 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 isobutylene tripolymer tape. Service temperature is -60ºF to + 212º F.
   Caulk: Eaves and ridge 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 trim 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.
   Seam Loc panel clips are attached to the purlins with self-drilling No. 10 x 1" Phillips Pancake Head, cadmium or zinc plated.
   Seam Loc panel clips are attached to wood decking with No. 10 x
   1" Type A #2 Phillips Pancake Head, cadmium or zinc plated.

4. TECHNICAL DATA

   The Seam Loc panel has received a Class 90 Wind Uplift rating by Underwriters Laboratories when tested in accordance with test procedure UL 580. The Seam Loc panel has been tested in accordance with wind uplift ASTM E1592 and CEGS 07416. 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. 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 warranties are available.

8. MAINTENANCE

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

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

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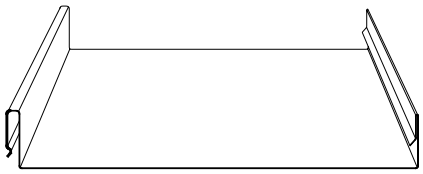
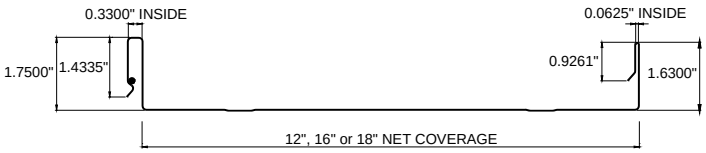
for rejection, because oilcanning does not affect the structural integrity of the panel.

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 12" SeamLoc Panel

Designated Gage of Steel	Steel Yield KSI	Base Metal Thick. (In.)	Total Thick. (In.)	Panel Weight (lbs. / ft.^{2})	Top In Compression Ix (In.^{4} / ft.)	Top In Compression Sx (In.^{3} / ft.)	Top In Compression Ma K-IN.	Bottom In Compression Ix (In.^{4} / ft.)	Bottom In Compression Sx (In.^{3} / ft.)	Bottom In Compression Ma K-IN.	Fb KSI
24 Ga.	50	0.0225	0.0241	1.47	0.117	0.078	2.35	0.058	0.057	1.70	30
22 Ga.	50	0.0300	0.0316	1.93	0.154	0.109	3.27	0.086	0.079	2.38	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	695	391	250	174	128	98	77	63
	2	POS	484	277	179	125	92	70	56	45
	3	POS	595	343	222	155	114	88	70	56
	4	POS	558	321	208	145	107	82	65	53
22 Ga.	1	POS	970	546	349	242	178	136	108	87
	2	POS	683	389	251	175	129	99	78	63
	3	POS	843	483	312	218	160	123	97	79
	4	POS	791	452	292	203	150	115	91	74

Engineering Properties of American Buildings Company 16" SeamLoc Panel

Designated Gage of Steel	Steel Yield KSI	Base Metal Thick. (In.)	Total Thick. (In.)	Panel Weight (lbs. / ft.^{2})	Top In Compression Ix (In.^{4} / ft.)	Top In Compression Sx (In.^{3} / ft.)	Top In Compression Ma K-IN.	Bottom In Compression Ix (In.^{4} / ft.)	Bottom In Compression Sx (In.^{3} / ft.)	Bottom In Compression Ma K-IN.	Fb KSI
24 Ga.	50	0.0225	0.0241	1.35	0.094	0.059	1.78	0.044	0.043	1.28	30
22 Ga.	50	0.0300	0.0316	1.77	0.123	0.084	2.51	0.065	0.060	1.79	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	527	297	190	132	97	74	59	47
	2	POS	363	208	134	94	69	53	42	34
	3	POS	447	257	167	117	86	66	52	42
	4	POS	419	241	156	109	80	62	49	40
22 Ga.	1	POS	743	418	268	186	136	105	83	67
	2	POS	513	292	188	131	97	74	59	47
	3	POS	634	363	234	163	120	92	73	59
	4	POS	594	340	219	153	113	86	68	55

Engineering Properties of American Buildings Company 18" SeamLoc Panel

Designated Gage of Steel	Steel Yield KSI	Base Metal Thick. (In.)	Total Thick. (In.)	Panel Weight (lbs. / ft.^{2})	Top In Compression Ix (In.^{4} / ft.)	Top In Compression Sx (In.^{3} / ft.)	Top In Compression Ma K-IN.	Bottom In Compression Ix (In.^{4} / ft.)	Bottom In Compression Sx (In.^{3} / ft.)	Bottom In Compression Ma K-IN.	Fb KSI
24 Ga.	50	0.0225	0.0241	1.31	0.085	0.053	1.59	0.039	0.038	1.14	30
22 Ga.	50	0.0300	0.0316	1.72	0.112	0.075	2.25	0.057	0.053	1.59	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	470	265	169	118	86	66	52	42
	2	POS	323	185	119	83	61	47	37	30
	3	POS	397	229	148	104	76	59	46	38
	4	POS	373	215	139	97	71	55	43	35
22 Ga.	1	POS	666	375	240	166	122	94	74	60
	2	POS	456	260	167	117	86	66	52	42
	3	POS	563	323	208	145	107	82	65	53
	4	POS	528	302	195	136	100	77	61	49

1. 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.
2. Section Properties are calculated in accordance with the 2007 *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 is 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.