

1. PRODUCT NAME

AMS Seam Loc panel for roof applications.

2. MANUFACTURER

ARCHITECTURAL METAL SYSTEMS

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Eufaula, Alabama 36027
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3. PRODUCT DESCRIPTION

These architectural standing seam panels, available with optional minor ribs, are connected with a 1 3/4" 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 Architectural Metal Systems' SmartKote (Kynar 500®) 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 -60°F to + 212° 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 Architectural Metal Systems Authorized Roofers. Installation may be incorporated with a light gage structural system.

6. AVAILABILITY

For availability, contact:

ARCHITECTURAL METAL SYSTEMS

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:

ARCHITECTURAL METAL SYSTEMS

10. PRODUCT NOTES

A certain amount of waviness called "oilcanning" may exist in this panel. Minor waviness of the panel is not sufficient cause

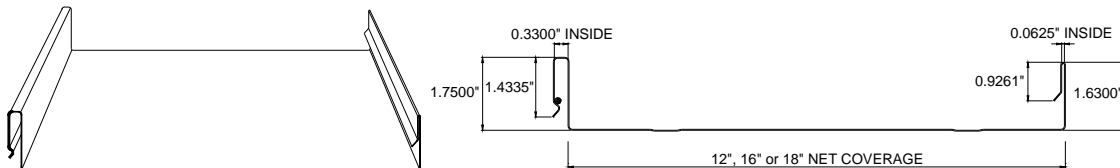
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SEAM-LOC PANEL SPECIFICATIONS

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

Architectural Metal Systems reserves the right to revise all standard specifications and information. Architectural Metal

Systems regularly updates its published "Standard Specifications" on the Architectural Metal Systems web site, www.ametalsystems.com, which supercede and replace any previously published standard specifications of Architectural Metal Systems.



PANEL PROFILE

CROSS SECTION

Engineering Properties of Architectural Metal Systems 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			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	1.47	0.117	0.078	2.34	0.058	0.057	1.71	30
22 Ga.	50	0.0300	0.0316	1.93	0.154	0.109	3.27	0.086	0.079	2.37	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	660	379	245	171	126	97	77	62	
	2	POS	496	278	180	125	92	71	56	45	
	3	POS	597	344	223	156	115	88	70	57	
	4	POS	561	323	209	146	108	83	65	53	
22 Ga.	1	POS	935	534	344	240	177	136	107	87	
	2	POS	682	388	250	174	128	98	78	63	
	3	POS	841	482	311	217	160	123	97	79	
	4	POS	789	461	291	203	149	115	91	74	
Engineering Properties of Architectural Metal Systems 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			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	1.35	0.094	0.059	1.77	0.044	0.043	1.29	30
22 Ga.	50	0.0300	0.0316	1.77	0.123	0.084	2.52	0.065	0.059	1.77	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	499	287	185	129	95	73	58	47	
	2	POS	367	210	135	95	70	53	42	34	
	3	POS	450	260	168	118	87	67	53	43	
	4	POS	423	243	157	110	81	62	49	40	
22 Ga.	1	POS	719	411	265	185	136	104	83	67	
	2	POS	509	290	187	130	96	73	58	47	
	3	POS	629	360	232	162	119	92	72	59	
	4	POS	590	337	217	152	112	86	68	55	
Engineering Properties of Architectural Metal Systems 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			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	1.31	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	448	257	166	116	86	66	52	42	
	2	POS	324	186	120	84	62	47	37	30	
	3	POS	398	230	149	104	77	59	47	38	
	4	POS	374	215	139	97	72	55	44	35	
22 Ga.	1	POS	642	367	237	165	122	93	74	60	
	2	POS	457	260	168	117	86	66	52	42	
	3	POS	564	323	209	146	107	82	65	53	
	4	POS	529	303	195	136	100	77	61	49	

- The panels were checked for bending, shear, combined bending and shear and deflection. Deflection was limited to span/150
- Section Properties have been calculated in accordance with the 2001 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 was 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.