



12" LOC SEAM / LOC SEAM 360 PANEL

PANEL SPECIFICATIONS

1. PRODUCT NAME

AMS Loc Seam panel for roof applications.

2. MANUFACTURER

ARCHITECTURAL METAL SYSTEMS

1150 State Docks Road
Eufaula, Alabama 36027
Phone: (334) 688-2650

3. PRODUCT DESCRIPTION

These standing seam roof panels offer a flat profile, with minor striations and optional pencil ribs, for an attractive appearance on higher pitched roofs. Loc Seam panels are seamed electrically and Loc-Seam 360 panels have full 360 degree rolled seams formed with an electrical seaming machine.

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

Materials: Loc Seam panels are 24 and 22 gage 50,000 psi either G90 zinc-coated (galvanized) or AZ50 aluminum-zinc alloy-coated steel. Pre-painted panels have Architectural Metal Systems' Marquis Series Premium (Kynar 500®) Finish.

Panel clips for the Loc Seam panels are two part assemblies. The tab portions are a nominal 2-3/8" or 3-1/8" (for thermal blocks) in height and 3" in width, die formed 24 gage aluminum coated steel. The bases are die formed 18 gage zinc-coated (galvanized) steel. Expansion capability is 1-1/4". Loc Seam 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.

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 -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.

A. Premium roof fasteners shall be No. 14 x 1" self-drilling carbon steel screws with a molded zinc alloy or capped stainless steel cupped 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.

Loc Seam panel clips are attached to the purlins with self-drilling carbon steel screws No. 12 x 1-1/4" hex head, cadmium or zinc plated.

4. TECHNICAL DATA

The Loc Seam 360 panel has received a Class 90 Wind Uplift rating by Underwriters Laboratories when tested in accordance with test procedure UL 580. The Loc Seam 360 roof panel has been Factory Mutual approved and 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 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. The Loc Seam panel has received a Class 90 Wind Uplift rating by Underwriters Laboratories when tested in accordance with test procedure UL 580. The Loc Seam roof panel has been tested in accordance with CEGS 07416. This panel has also been tested in accordance with Air Infiltration, ASTM E1680, ASTM E283 and Water Penetration, ASTM E1646, ASTM E331. 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. Panel sidelaps are seamed by a special electrical seaming machine. Sidelap sealer is factory applied. Roof systems are installed by Architectural Metal Systems' Preferred Roofing Contractors. Installation may be incorporated with a light gage structural system.

6. AVAILABILITY

For availability, contact:
Architectural Metal Systems
1150 State Docks Road
Eufaula, Alabama 36027
Phone (334) 688-2650

7. WARRANTY

Thirty-five year paint finish and twenty year weathertightness warranties are available.

8. MAINTENANCE

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

continued...on back

9. TECHNICAL SERVICES

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PANEL SPECIFICATIONS

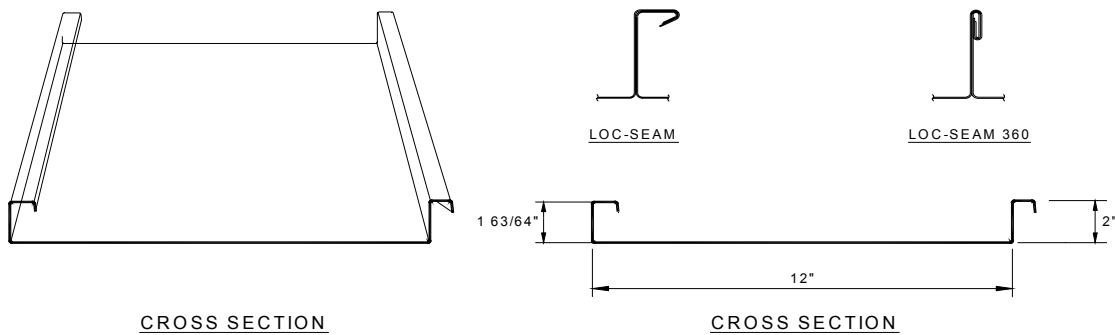
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Loc Seam Panels in general are known for their tendency to rattle in high winds if insulation is not used. An insulation spacer strip (FS-1) should be used along the roof purlins whenever insulation is not required in the roof system.

Architectural Metal Systems reserves the right to revise all standard specifications and information. Architectural Metal Systems regularly updates its published "Standard Specifications" on the AMS web site, www.ametalsystems.com, which supercede and replace any previously published standard specifications of 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 for rejection, because oilcanning does not affect the structural integrity of the panel.



Engineering Properties of AMS' 12" Loc-Seam / Loc-Seam 360 Panel								
Designated Gage Of Steel	Base Metal Thickness (Inches)	Total Thickness (Inches)	Panel Weight (lbs./ft. ²)	Top In Compression		Bottom In Compression		Fy/1.67 (ksi)
				Ix (In ⁴ /ft.)	Sx (In ³ /ft.)	Ix (In ⁴ /ft.)	Sx (In ³ /ft.)	
24 Gage	0.0225	0.0230	1.41	0.189	0.108	0.095	0.080	30
22 Gage	0.0300	0.0301	1.84	0.265	0.166	0.141	0.122	30
Designated Gage Of Steel	Number of Spans	Maximum Total Uniform Load in PSF						
		L = 2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	
24 Gage	1	345	239	176	135	106	86	
	2	255	177	130	100	79	64	
	3	319	222	163	125	99	80	
	4	298	207	152	116	92	75	
22 Gage	1	532	369	271	208	164	133	
	2	391	272	200	153	121	98	
	3	489	339	249	191	151	122	
	4	456	317	233	178	141	114	

1. Section properties have been calculated in accordance with the *AISI specifications for the Design of Cold-Formed Steel Structural Members, 1996 Edition, including Supplement No. 1 (1999)*
2. Minimum yield strength of steel is 50,000 psi.
3. Steel panels are either aluminum-zinc alloy or G-90 coated. The base metal thickness shown is the minimum design thickness and was used in determining section properties.
4. Positive load is downward load applied to the top of the panel cross section as shown above.
5. The loads shown are limited by the more critical of Span/150 deflection or the allowable bending moment with no stress increase.