

1. PRODUCT NAME

AMS Long Span III Panel for roof and wall applications.

2. MANUFACTURER

ARCHITECTURAL METAL SYSTEMS

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Eufaula, Alabama 36027
Phone: (334) 687-2032

3. PRODUCT DESCRIPTION

These wall and roof panels have 1 ¼" ribs on 12" centers for an even shadowed appearance. They offer 36" width coverage and are reinforced between the ribs for added strength. Minimum roof slope for Long Span III roof panels is ½ to 12.

Basic Use: A roof and wall covering systems for new or retrofit construction.

Materials: Long Span III panels are available in 29, 26, 24 gage 80,000 psi or 22 gage 50,000 psi and 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®) or Silicone Modified Polyester Finish. An embossed finish is available as an option. Long Span III wall panels are attached to the secondary framing members by self-drilling carbon steel screws, No. 12 x 1 1/4" hex washer head, cadmium or zinc plated. Long Span III wall sidelaps are stitched with self-drilling carbon steel screws, No. 14 X 3/4" Type A or AB, cadmium or zinc plated.

Fasteners are normally color coordinated with a premium coating system that protects against corrosion and weathering. Long Span III roof panels are attached to secondary framing members by the following:

A. Premium roof fasteners shall be No. 12 x 1 1/4" self-drilling carbon steel screws with a molded zinc alloy hex washer head. Roof fasteners shall be assembled with an EPDM washer. Premium roof fasteners shall be used on all warranted roofs and all pre-finished roofs.

B. Standard roof fasteners shall be No. 12 x 1 1/4" self-drilling carbon steel screws with an integral hex washer head. Roof fasteners shall be assembled with an EPDM washer. Standard roof fasteners shall have a corrosive resistant coating over zinc plating. Standard fasteners shall be used on unwarranted aluminum-zinc alloy-coated roofs only. Fasteners for roof panel sidelaps and flashing connection shall be stitched by the following:

A. Premium roof fasteners shall be No. 14 X 3/4", Type "AB" self-drilling carbon steel screws with a molded zinc alloy hex washer head. Roof fasteners shall be assembled with an EPDM washer.

Premium roof fasteners shall be used on all warranted roofs and all pre-finished roofs.

B. Standard roof fasteners shall be No. 14 X 3/4" self-drilling carbon steel screws with an integral hex washer head. Roof fasteners shall be assembled with an EPDM washer. Standard roof fasteners shall have a corrosive resistant coating over zinc plating. Standard fasteners shall be used on unwarranted aluminum-zinc alloy-coated roofs only. Long Span III panel roof sidelaps, endlaps, roof flashing laps; ridge and eave 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 +250°F. Maximum insulation thickness allowed with roof panels is 6" and 4" for wall panel applications.

4. TECHNICAL DATA

The Long Span III panel has received a Class 90 Wind Uplift rating by Underwriters Laboratories when tested in accordance with test procedure UL 580. This panel has been Factory Mutual and Miami-Dade County approved and tested in accordance with Air Infiltration, ASTM E283 and Water Penetration, ASTM E331. This panel has received a Class A fire rating when tested in accordance with test procedure, ASTM E108

5. INSTALLATION

Installation should be performed in accordance with Architectural Metal Systems' manuals and building erection drawings, and should be by a qualified installer using proper tools and equipment. Systems are installed by Architectural Metal Systems Authorized Roofers.

6. AVAILABILITY

For availability, contact:

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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:

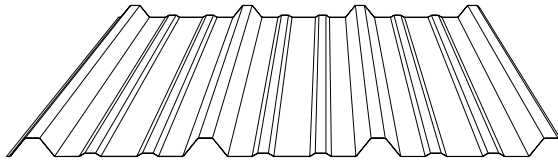
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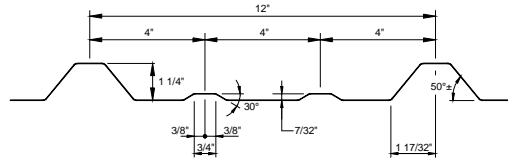
10. PRODUCT NOTES

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.americanbuildings.com, which supercede and replace any previously published standard specifications of Architectural Metal Systems.



PANEL PROFILE



PARTIAL CROSS SECTION

Engineering Properties of Architectural Metal Systems Long Span III 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.	
29 Ga.	80	0.0137	0.0153	0.74	0.030	0.025	0.90	0.026	0.035	1.26	36
26 Ga.	80	0.0177	0.0193	0.94	0.043	0.037	1.33	0.035	0.046	1.66	36
24 Ga.	80	0.0225	0.0241	1.17	0.060	0.054	1.94	0.047	0.059	2.12	36
22 Ga.	50	0.0300	0.0316	1.53	0.083	0.085	2.55	0.070	0.081	2.43	30

Gage of Panel	No. of Spans	Load Type	Maximum Total Uniform Load in PSF							
			Span Lengths, Ft.							
			3.00	3.50	4.00	4.50	5.00	6.00	7.00	7.33
29 Ga.	1	POS	57	47	36	29	23	15	9	8
		NEG	-83	-63	-43	-30	-22	-13	-8	-7
	2	POS	54	46	40	36	31	22	17	15
		NEG	-49	-42	-35	-28	-23	-16	-12	-11
	3	POS	61	53	46	41	37	27	17	15
		NEG	-56	-48	-42	-35	-28	-20	-15	-13
	4	POS	59	51	44	39	35	26	18	16
		NEG	-54	-46	-40	-33	-27	-19	-14	-13
26 Ga.	1	POS	96	71	55	43	35	21	13	11
		NEG	-117	-86	-57	-40	-29	-17	-11	-9
	2	POS	87	75	66	53	43	30	22	20
		NEG	-64	-55	-48	-42	-35	-24	-18	-16
	3	POS	99	85	74	65	53	37	25	21
		NEG	-72	-62	-54	-48	-43	-30	-20	-18
	4	POS	96	82	72	61	50	35	26	23
		NEG	-70	-60	-52	-46	-41	-28	-21	-19
24 Ga.	1	POS	141	104	80	63	51	29	18	16
		NEG	-153	-113	-77	-54	-39	-23	-14	-13
	2	POS	136	112	87	69	56	39	29	26
		NEG	-81	-69	-61	-54	-49	-36	-26	-24
	3	POS	155	133	107	85	69	48	35	30
		NEG	-92	-79	-69	-61	-55	-43	-27	-24
	4	POS	149	128	100	80	65	45	33	30
		NEG	-89	-76	-66	-59	-53	-42	-29	-25
22 Ga.	1	POS	186	137	105	83	68	40	25	22
		NEG	-177	-131	-100	-79	-59	-34	-21	-19
	2	POS	176	130	100	79	64	45	33	30
		NEG	-114	-98	-86	-76	-67	-47	-35	-31
	3	POS	217	161	124	98	80	56	41	37
		NEG	-130	-111	-98	-87	-78	-58	-40	-35
	4	POS	204	151	116	92	75	52	38	35
		NEG	-125	-107	-94	-83	-75	-55	-40	-37

- The panels were checked for bending, shear, combined bending and shear, deflection, web crippling, and panel pullover. 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 29, 26 and 24 gage steel is 80,000 psi. Minimum yield strength of 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. Negative load (NEG) is in the opposite direction.