

# LONG SPAN III PANEL SPECIFICATIONS

## 1. PRODUCT NAME

American Long Span III Panel for roof and wall applications.

## 2. MANUFACTURER

**AMERICAN BUILDINGS COMPANY**  
1150 State Docks Road  
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 American Buildings Company's SmartKote® (PVDF) or SP-COOL (Silicone-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:

**Fasteners:** 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.

Fasteners for roof panel sidelaps and flashing connection shall be stitched by the following:

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.

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 6" 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 American Buildings Company's manuals and building erection drawings, and should be by a qualified installer using proper tools and equipment. Systems are installed by American Buildings Company Authorized Builders.

## 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:

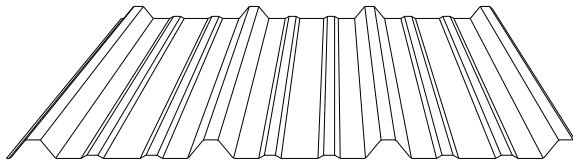
**AMERICAN BUILDINGS COMPANY**

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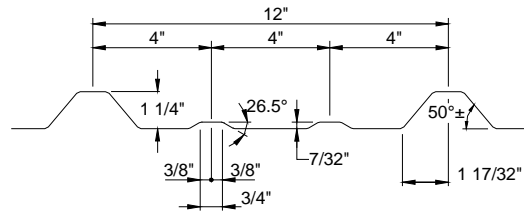
## 10. PRODUCT NOTES

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](http://www.americanbuildings.com), which supercede and replace any previously published standard specifications of American Buildings Company.



PANEL PROFILE



PARTIAL CROSS SECTION

Engineering Properties of American Buildings Company Long Span III Panel (ASD)											
Designated Gage of Steel	Steel Yield KSI	Base Metal Thick. (In.)	Total Thick. (In.)	Panel Base Metal Weight (lbs. / ft. <sup>2</sup> )	Top In Compression			Bottom In Compression			Fb KSI
					Ix (In. <sup>4</sup> / ft.)	Sx (In. <sup>3</sup> / ft.)	Ma K-IN. / ft.	Ix (In. <sup>4</sup> / ft.)	Sx (In. <sup>3</sup> / ft.)	Ma K-IN. / ft.	
29 Ga.	80	0.0137	0.0153	0.66	0.030	0.025	0.91	0.026	0.035	1.27	36
26 Ga.	80	0.0177	0.0193	0.86	0.043	0.037	1.34	0.035	0.046	1.66	36
24 Ga.	80	0.0225	0.0241	1.09	0.060	0.054	1.95	0.047	0.059	2.14	36
22 Ga.	50	0.0300	0.0316	1.45	0.083	0.085	2.56	0.070	0.081	2.44	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		7.50	
29 Ga.	1	POS	67	B	49	B	38	B	30	B	24	B	17	B	12	B	11	B
		NEG	-94	B	-69	B	-53	B	-42	B	-34	B	-23	B	-17	B	-15	B
	2	POS	46	C	40	C	35	C	31	C	28	C	22	B+S	17	B+S	15	B+S
		NEG	-49	P	-42	P	-36	B+S	-29	B+S	-23	B+S	-16	B+S	-12	B+S	-11	B+S
	3	POS	53	C	45	C	39	C	35	C	32	C	26	B	19	B	17	B
		NEG	-56	P	-48	P	-42	P	-35	B+S	-29	B+S	-20	B+S	-15	B+S	-13	B+S
	4	POS	51	C	43	C	38	C	34	C	30	C	25	C	19	B+S	17	B+S
		NEG	-54	P	-46	P	-40	P	-33	B+S	-27	B+S	-19	B+S	-14	B+S	-12	B+S
26 Ga.	1	POS	99	B	73	B	56	B	44	B	36	B	25	B	18	B	16	B
		NEG	-123	B	-91	B	-69	B	-55	B	-44	B	-31	B	-23	B	-20	B
	2	POS	75	C	64	C	56	C	50	C	43	B+S	30	B+S	22	B+S	19	B+S
		NEG	-64	P	-55	P	-48	P	-42	P	-35	B+S	-24	B+S	-18	B+S	-16	B+S
	3	POS	85	C	73	C	64	C	57	C	51	C	37	B+S	28	B+S	24	B+S
		NEG	-72	P	-62	P	-54	P	-48	P	-43	P	-30	B+S	-22	B+S	-20	B+S
	4	POS	82	C	70	C	61	C	55	C	49	C	35	B+S	26	B+S	23	B+S
		NEG	-70	P	-60	P	-52	P	-46	P	-41	B+S	-28	B+S	-21	B+S	-18	B+S
24 Ga.	1	POS	145	B	106	B	81	B	64	B	52	B	36	B	27	B	23	B
		NEG	-158	B	-116	B	-89	B	-70	B	-57	B	-40	B	-29	B	-25	B
	2	POS	117	C	100	C	87	B+S	69	B+S	56	B+S	39	B+S	29	B+S	25	B+S
		NEG	-81	P	-69	P	-61	P	-54	P	-49	P	-36	B+S	-26	B+S	-23	B+S
	3	POS	133	C	114	C	100	C	86	B+S	70	B+S	49	B+S	36	B+S	31	B+S
		NEG	-92	P	-79	P	-69	P	-61	P	-55	P	-45	B+S	-33	B+S	-29	B+S
	4	POS	128	C	110	C	96	C	80	B+S	65	B+S	46	B+S	34	B+S	29	B+S
		NEG	-89	P	-76	P	-66	P	-59	P	-53	P	-42	B+S	-31	B+S	-27	B+S
22 Ga.	1	POS	189	B	139	B	107	B	84	B	68	B	47	B	35	B	30	B
		NEG	-180	B	-133	B	-102	B	-80	B	-65	B	-45	B	-33	B	-29	B
	2	POS	166	C	130	B+S	100	B+S	79	B+S	64	B+S	45	B+S	33	B+S	29	B+S
		NEG	-114	P	-98	P	-86	P	-76	P	-67	B+S	-47	B+S	-35	B+S	-30	B+S
	3	POS	188	C	161	C	124	B+S	99	B+S	80	B+S	56	B+S	41	B+S	36	B+S
		NEG	-130	P	-111	P	-98	P	-87	P	-78	P	-59	B+S	-43	B+S	-38	B+S
	4	POS	181	C	151	B+S	116	B+S	92	B+S	75	B+S	52	B+S	38	B+S	34	B+S
		NEG	-125	P	-107	P	-94	P	-83	P	-75	P	-55	B+S	-40	B+S	-35	B+S

- The panels are checked for bending (B), shear (S), combined bending and shear (B+S), deflection (D), web crippling (C), and panel pullover (P). The controlling check is noted in the table. Deflection is limited to span/60, and includes the permitted wind load reduction factor of 0.7 times the "components and cladding" loads as noted in footnote f of IBC Table 1604.3.
- Section Properties are calculated in accordance with the 2012 *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 is 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.