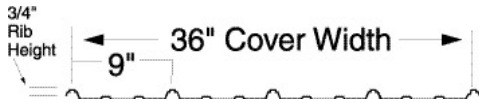


# Panel Loc Plus



Panel Loc Plus is available in 29ga and 26ga painted Galvalume, bare Galvanized and bare Galvalume. Central States uses the Valspar-10S paint system on all painted metals. Bare (non-painted) metals from Central States will have an acrylic coating. This acrylic coating helps protect the metal during manufacturing and installation. This clear organic treatment applied over the galvalume and galvanized coating is invisible, but provides enhanced performance applicability. There is no need for oils to be applied during forming. This organic treatment eliminates fingerprinting and foot marking during installation, and retains heat reflectivity.

Central States' 29ga and 26ga steel are manufactured to meet ASTM A792 specifications for Galvalume and ASTM A653 for Galvanized with a minimum yield of 80,000 PSI. Panel Loc Plus also has a UL2218/Class 4 impact resistance rating and UL790 for fire resistance.

The minimum roof slope for the 3/4" tall Panel Loc Plus is 3:12. The minimum pitch, along with Panel Loc Plus' siphon groove, will allow for sufficient drainage of water. For added protection, a sealant tape can be used on the laps of the panel.

SECTIONS PROPERTIES:				36" WIDE, CENTRAL STATES MANUFACTURING PANEL LOC					
Gauge	Thickness (inches)	Weight (psf)	Yield Stress (ksi)	Top in Compression (Positive Bending)			Bottom in Compression (Negative Bending)		
				I <sub>xx</sub>	S <sub>xx</sub>	M <sub>a</sub>	I <sub>xx</sub>	S <sub>xx</sub>	M <sub>a</sub>
				in <sup>4</sup> /ft	in <sup>3</sup> /ft	in.kips/ft	in <sup>4</sup> /ft	in <sup>3</sup> /ft	in.kips/ft
26	0.0185	0.866	80.0	0.0133	0.0220	0.7913	0.0093	0.0198	0.7123
29	0.0150	0.704	80.0	0.0110	0.0181	0.6493	0.0073	0.0160	0.5760

Section properties and allowables are calculated in accordance with 1996 AISI Specifications and 1999 AISI Supplement No. 1. I +/- is for deflection determination. S +/- is for bending determination. M<sub>a</sub> is allowable bending moment. All values are for one foot of panel width. These loads are for panel strength. Frames, purlins, fasteners and all supports must be designed to resist all loads imposed on the panel. Allowable outward loads based on stress have been increased by 33.33% for wind uplift. Allowable loads for deflection are based on deflection limitation of span/180 or span/240. For roof panels, self weight of the panel has to be deducted from the allowable inward load to arrive at the actual "live load" carrying capacity of the panel. Minimum bearing length must be checked. Minimum deliverable bare steel thickness should not be less than 0.95 of design thickness.

## THEORETICAL ALLOWABLE LIVE AND WIND LOADS

### SINGLE SPAN CONDITION

Span (feet)	29 Gauge & 80 ksi				26 Gauge & 80 ksi			
	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)
2	108.2	108.2	90.1	127.7	131.9	131.9	109.3	157.9
2.5	69.3	61.5	46.2	81.7	84.4	74.6	55.9	101.1
3	48.1	35.6	26.7	56.7	58.6	43.2	32.4	70.2
3.5	35.3	22.4	16.8	41.7	43.1	27.2	20.4	51.6
4	27.1	15.0	11.3	31.9	33.0	18.2	13.7	39.5
4.5	21.4	10.6	7.9	25.2	26.1	12.8	9.6	31.2
5	17.3	7.7	5.8	20.4	21.1	9.3	7.0	25.3
6	12.0	4.5	3.3	14.2	14.7	5.4	4.0	17.5

### TWO SPAN CONDITION

Span (feet)	29 Gauge & 80 ksi				26 Gauge & 80 ksi			
	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)
2	96.0	96.0	96.0	143.9	118.7	118.7	118.7	175.4
2.5	61.4	61.4	60.1	92.1	76.0	76.0	72.8	112.3
3	42.7	42.7	34.8	64.0	52.8	52.8	42.2	78.0
3.5	31.3	29.2	21.9	47.0	38.8	35.4	26.5	57.3
4	24.0	19.6	14.7	36.0	29.7	23.7	17.8	43.9
4.5	19.0	13.7	10.3	28.4	23.5	16.7	12.5	34.6
5	15.4	10.0	7.5	23.0	19.0	12.1	9.1	28.1
6	10.7	5.8	4.3	16.0	13.2	7.0	5.3	19.5

### THREE OR MORE SPAN CONDITION

Span (feet)	29 Gauge & 80 ksi				26 Gauge & 80 ksi			
	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)
2	112.1	112.1	112.1	168.1	138.7	138.7	138.7	204.9
2.5	71.8	71.8	71.8	107.6	88.8	88.8	88.8	131.1
3	49.8	49.8	49.8	74.7	61.6	61.6	61.1	91.1
3.5	36.6	36.6	31.7	54.9	45.3	45.3	38.5	66.9
4	28.0	28.0	21.3	42.0	34.7	34.4	25.8	51.2
4.5	22.2	19.9	14.9	33.2	27.4	24.1	18.1	40.5
5	17.9	14.5	10.9	26.9	22.2	17.6	13.2	32.8
6	12.5	8.4	6.3	18.7	15.4	10.2	7.6	22.8

Theoretical allowable loads are based on uniform span lengths. LL (S) is allowable live load based on stress limitation. LL (D) is allowable live load based on deflection limitation of L/180 or L/240. WL is allowable wind load and has been increased by 33 1/3%