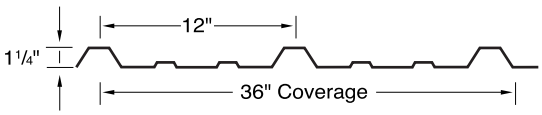
R-Loc



R-Loc is available in 26ga painted and bare Galvalume. Central States uses the Valspar-10S paint system on all painted metals. The paint has a 30 year limited warranty, and Galvalume substrate has a 20 year limited warranty. 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 coating is invisible, but provides enhanced performance applicability and retained heat reflectivity. There is no need for oils to be applied. This organic treatment eliminates of fingerprinting and foot marking during installation. Prime materials have purlin bearing rib while Thrifty materials do not.

Central States' 26ga steel is manufactured to meet ASTM A792 specifications for Galvalume and ASTM A653 for Galvanized with a minimum yield of 80,000 PSI. The R-Loc panel also has UL580, Class 90 with proper installation, UL2218/Class 4 impact resistance ratings and UL790 fire resistance.

The recommended minimum roof slope for the 1 1/4" R-Loc is a 1/2:12 pitch. This will allow for sufficient drainage of water. For added protection, a sealant tape can be used on the laps of the panel.

SECTION PROPERTIES: 36" WIDE, CENTRAL STATES MANUFACTURING R-LOC PANEL

Gauge	Thickness (inches)	Weight (psf)	Yield Stress (ksi)	Top in Compression (Positive Bending)			Bottom in Compression (Negative Bending)		
				I_{xx}	S_{xx}	M_a	I_{xx}	S_{xx}	M_a
				in^4/ft	in^3/ft	in.kips/ft	in^4/ft	in^3/ft	in.kips/ft
26	0.0185	0.881	80.0	0.0400	0.0406	1.4590	0.0373	0.0497	1.7847

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. Ma 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

	26 Gauge & 80 ksi			
Span (feet)	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)
3	108.1	108.1	97.1	175.8
3.5	79.4	79.4	61.2	129.2
4	60.8	54.6	41.0	98.9
4.5	48.0	38.4	28.8	78.1
5	38.9	28.0	21.0	63.3
6	27.0	16.2	12.1	44.0
7	19.9	10.2	7.6	32.3
8	15.2	6.8	5.1	24.7

TWO SPAN CONDITION

	26 Gauge & 80 ksi			
Span (feet)	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)
3	132.2	132.2	126.5	143.7
3.5	97.1	97.1	79.6	105.6
4	74.4	71.1	53.3	80.9
4.5	58.8	50.0	37.5	63.9
5	47.6	36.4	27.3	51.7
6	33.0	21.1	15.8	35.9
7	24.3	13.3	10.0	26.4
8	18.6	8.9	6.7	20.2

THREE OR MORE SPAN CONDITION

	26 Gauge & 80 ksi			
Span (feet)	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)
3	154.4	154.4	154.4	167.9
3.5	113.5	113.5	113.5	123.4
4	86.9	86.9	77.3	94.5
4.5	68.6	68.6	54.3	74.6
5	55.6	52.8	39.6	60.5
6	38.6	30.5	22.9	42.0
7	28.4	19.2	14.4	30.8
8	21.7	12.9	9.7	23.6

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%