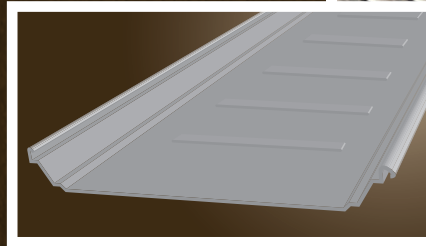


StarShield®

Standing Seam Roof System



Description

StarShield® is a 24" wide, 24 gauge panel with a standing rib which is field machine double-lock seamed 2⁷/₈" above the drainage surface. It is a floating system – two piece clips connect the weathering surface to the structural member, eliminating panel to structural fastener penetrations, and absorbing expansion and contraction forces resulting from seasonal temperature extremes. The full floating feature ensures structural integrity and resists thermal shock.

Gauge

24 gauge (standard)
22 gauge

Length

Maximum length of 44'-6"

Dimensions

24" wide by 2⁷/₈" high

Finish

Galvalume Plus®
Signature® 200 Colors
Signature® 300 Colors

Fasteners

Concealed fastener system with floating clips. No panel to structural panel penetrations. Various clip heights available to allow for insulation.

Usage

New construction and retrofit applications

Limitations

Recommended for roof slopes of ¼:12 or greater



Attributes

1. Fully floating roof system
2. No panel to structural panel penetrations
3. Factory notched panels
4. Endlaps feature heavy gauge splice plate
5. Fewer exposed fasteners
6. Two piece sliding clip design
7. Factory fabricated start/finish panels
8. Various clip heights
9. Panel seam contains factory installed sealant
10. UL® 90 and FM rated

Advantages

1. Absorbs expansion and contraction forces resulting from seasonal temperature extremes; resists thermal shock
2. Insures weathertight performance
3. Panels self-align for proper overlap; Maximizes field installation efficiency
4. Provides panel continuity and solid connection at endlaps
5. Maximizes weathertightness
6. Accommodates expansion movement
7. Improves field installation efficiency
8. Maximizes insulation system options
9. Insures weathertight construction
10. Reduces insurance costs

StarShield® - Section Properties

PANEL GAUGE	Ap (IN ² /FT.)	G' (#/IN.)	NEGATIVE BENDING		POSITIVE BENDING		Fb (KSI)
			Ix (IN.4/FT.)	Sx (IN.3/FT.)	Ix (IN.4/FT.)	Sx (IN.3/FT.)	
24	0.655	1000	0.29826	0.12430	0.14934	0.08556	30
22	0.840	1000	0.36780	0.14290	0.18420	0.11355	30

Allowable Load (PSF) For Nominal Purlin Spacing

24 Gauge

SPAN TYPE	LOAD CONDITION	PURLIN SPACE			
		2.6'	4'	5'	6'
2-SPAN	GRAVITY	(142)	(89)	68.31	47.44
	UPLIFT - Fasteners - Tabs	(67) (69)	(42) (58)	(33) (50)	(28) (42)
3-SPAN	GRAVITY	(162)	(101)	(81)	59.30
	UPLIFT - Fasteners - Tabs	(76) (78)	(47) (66)	(38) (59)	(32) (49)
4-SPAN	GRAVITY	(156)	(97)	(78)	55.37
	UPLIFT - Fasteners - Tabs	(73) (75)	(46) (53)	(37) (57)	(31) (47)

22 Gauge

SPAN TYPE	LOAD CONDITION	PURLIN SPACE			
		2.6'	4'	5'	6'
2-SPAN	GRAVITY	(142)	(89)	(71)	(59.1)
	UPLIFT - Fasteners - Tabs	(67) (69)	(42) (58)	(33) (50)	(28) (42)
3-SPAN	GRAVITY	(162)	(101)	(81)	(67.5)
	UPLIFT - Fasteners - Tabs	(76) (78)	(47) (66)	(38) (59)	(32) (49)
4-SPAN	GRAVITY	(156)	(97)	(78)	(65)
	UPLIFT - Fasteners - Tabs	(73) (75)	(46) (63)	(37) (57)	(31) (47)

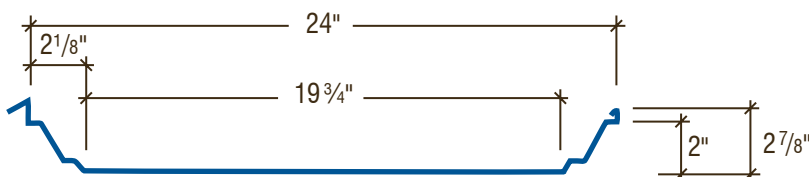
The engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the *North American Specification for the Design of Cold-Formed Steel Structural Members* published by the American Iron and Steel Institute to facilitate design. This specification contains the design criteria for cold-formed steel components. Along with the specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

EFFECTIVE JULY 22, 2010
SUBJECT TO CHANGE WITHOUT NOTICE

Galvalume Plus® is a registered trademark of BIEC International, Inc.

Signature® is a registered trademark of the NCI Group.

StarShield® is a registered trademark of the NCI Group.



Properties Notes:

1. Section properties have been calculated in accordance with the 1986 *AISI Cold-Formed Specification* with 1989 addendum.
2. Steel thickness was used in determining section properties. Coated thickness includes galvanized or zinc-aluminum coating.

Allowable Uniform Loads Notes:

1. Values provided in the tables which are not in parentheses are based on section properties.
2. For gravity loading:
The values shown are based on stress except values in parenthesis are controlled by panel clip crippling.
The allowable gravity loads shown will result in less than L/240 panel rib deflection.
3. For uplift loading:
The top values are based on standard panel clip fastener pullout in .064" thick purlin and includes 1/3 increase for wind. This value can be increased with thicker purlins and/or additional fasteners but cannot exceed the tab capacity.
The bottom values are based on tab pullout of seam and include a 1/3 increase for wind.
The allowable uplift loads shown will result in less than L/180 panel rib deflection.



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