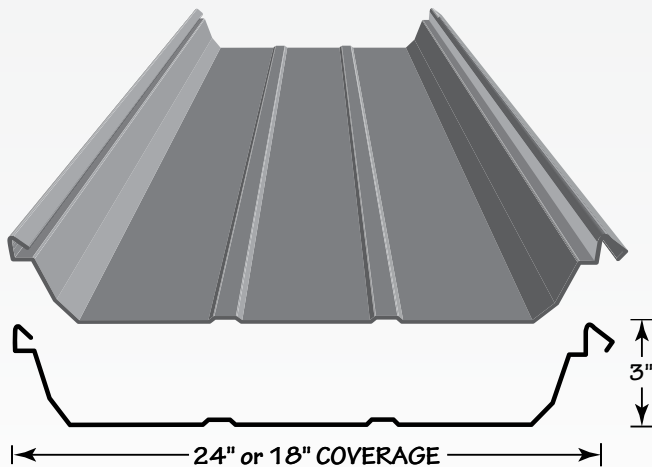


Central Seam Plus®

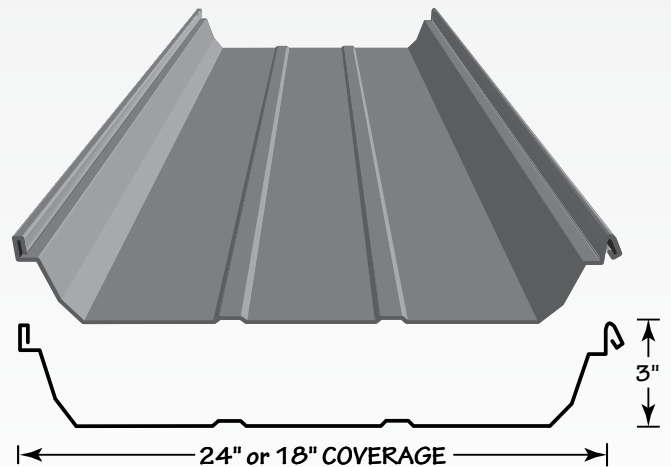
Central-Loc®

Product Guide

HELPFUL INFORMATION ON PANELS, TRIMS, GUTTERS AND ACCESSORIES



Central Seam Plus®
Field seamed



Central-Loc®
Snaps together



OUR MISSION

The men and women at Central States Manufacturing, Inc. would like to welcome you.

Central States Manufacturing, Inc. is an employee-owned company that is **committed to excellence** in the manufacturing and the distribution of metal building products. We are **dedicated to personal growth** and to the well being of each team member. We are also dedicated to **increasing the value** of our company.

In appreciation of our customers, we are devoted to **exceeding their expectations**. It is our promise to **maintain total honesty and integrity** with everyone our lives may touch.

With thanksgiving for the blessings we have been given, we are **committed to serving** the communities where we live and work by giving back a portion of our time, talents and profits.



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Information in the catalog may vary by plant location.

Please call your salesperson to verify product availability.

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Notice: The application and detail drawings in this manual are strictly for illustration purposes and may not be applicable to all building designs or product installations. Projects should conform to local building codes. Central States Manufacturing is not responsible for the performance of the material if it is not installed correctly.

Information contained in this booklet was in effect at the time of publication and is subject to change without notice.

RECEIVING & HANDLING

DELIVERY

Additional freight charges may apply. Deliveries will be made using a tractor/trailer weighing approximately 80,000 lbs. It is imperative that all delivery locations be accessible by a vehicle of this size. Our drivers have the authority to refuse delivery to any location they see as unsafe or inaccessible. The customer is responsible for any charges incurred if truck is detained for any reason.

The customer is responsible for unloading all trucks. Any damage that occurs at this point is the customer's responsibility. There must be either equipment or at least 3 people to unload truck.

STORAGE AND HANDLING

Galvalume steel sheets have a good service life when exposed to normal weather conditions however, to protect the appearance of panels and trims from damage, there are a few simple precautions that can be taken. The steel sheets are subject to stain when water sits upon, or becomes trapped between the sheets. If the Galvalume sheets are to be stored for any period of time, they should be stored only in a dry place, preferably under a roof. Stand panels on end and fan them out at the bottom to provide air circulation and moisture run off. If space does not allow this, the panels should be separated, blocked off of the floor at least 12 inches to allow air flow, and stored at an incline to encourage drainage. The panels should then be covered, yet still have good air flow through the sheets to prevent condensation. Do not use a plastic cover, as this may cause the panels to sweat or condensation to occur.

Failure to follow these steps may result in wet storage stains and premature rusting. The manufacturer's warranty will be void at this time, and the manufacturer will not be responsible.

When unloading panels, extreme caution must be employed. Care needs to be used when unloading panels with a forklift. Panel edges and underside paint may become damaged if the forklift driver does not use caution. Once in the job site, care must be taken in order to protect the painted surface. When unbundling the panels, never drag them across the surface of one another. This may cause scratches across the underneath panels. It is recommended that the panels be "rolled" off the top of the bundle to prevent scratching. Never lift panels by the ends, instead lift the panels longitudinally and carry vertically.

Panel edges are very sharp, therefore, safety equipment should be worn by all workers handling the material.

Panels are bundled together, which causes them to curl up. This enhances the strength of the bundles. Panels bundled in this manor may be handled by a forklift in lengths of 30'. The forklift should have at least 5' between forks. Lengths in excess of 30' must be lifted utilizing a spreader bar. Special care must be given during handling to avoid damage to the locking edge of the panels.

CUTTING

A portable field shear is the ideal method for cutting panels. Nibblers or a power shear may also be used. Although we do not recommend it, if you decide to cut with a saw, it is very important that the panels be turned upside down during cutting so that hot shavings do not come in contact with the painted surface. Make sure all adjacent panels are covered so that shavings are not imbedded in these panels. If metal shavings become imbedded in the paint surface, they will quickly rust. To avoid this, panels should be thoroughly wiped of all filings on both sides of the panel. Failure to comply with the recommended cutting procedures releases the manufacturer of any responsibility.

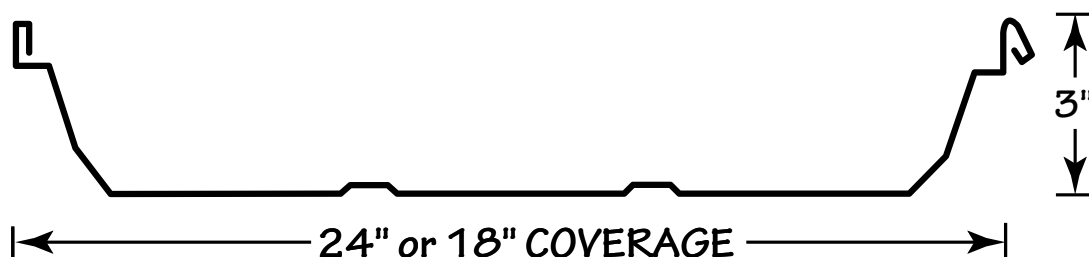
DRILLING

Panels should not be drilled while stacked. This will cause shavings that will become imbedded in the paint surface.

CENTRAL-LOC®

Central-Loc® is a snap-together trapezoidal roofing system available in 24" standard coverage and an optional 18" panel. Its floating clips allow for thermal roof expansion and contraction during extreme temperature changes. A factory applied sealant insures a weather-tight and secure lap. This panel can be used for both new construction and retrofit. Central-Loc® is manufactured from Galvalume which offers two to four times the corrosion resistance of galvanized steel.

- Weather-tight 3" high standing seam with concealed clips and fasteners
- Factory applied hot melt seam and clip sealant
- Large selection of clip sizes to accommodate various types of construction and insulation thicknesses
- Tested in accordance with ASTM E-1680 (air infiltration) and ASTM E-1646 (water infiltration)
- Tested in accordance with ASTM E 1592
- Tested in accordance with UL580 meeting UL90 wind uplift requirements
- Panels can be pre-punched, combined with self-engaging backup plates for ease of installation.
- No field seaming
- Reversible end-for-end panels so each side of the roof can be installed simultaneously.
- Panels are factory notched for ease of installation at the endlap
- Comprehensive step-by-step erection manuals come with each Standing Seam order.



CENTRAL-LOC[®]

Coverage Width -	24" with minor ribs - prepunched 6 holes or no punching 18" with minor ribs - prepunched 5 holes or no punching
Minimum Slope -	1/4:12
Panel Attachment -	Low, high (fixed or floating), or utility (no insulation clearance)
Panel Substrate -	Galvalume Plus [®] (standard)
Gauge -	24
Finishes -	Smooth with minor ribs
Panel Coating -	Kynar 500 [®] /Hylar 5000 [®]

Note: Oil canning in the flat area of the panels is common to the industry and does not affect the integrity of the panel. Therefore, oil canning is not a reason for rejection.

ALLOWABLE LIVE LOADS

CENTRAL-LOC[®] - 24" COVERAGE

24 Gauge (Fy = 50 KSI) - All loads in pounds per square foot.								
SPAN TYPE	LOAD TYPE	Span (ft)						
		2.5	3.0	3.5	4.0	4.5	5.0	5.5
1-SPAN	LIVE LOAD	204.0	170.0	145.7	127.5	113.3	92.3	76.3
2-SPAN	LIVE LOAD	204.0	170.0	145.7	118.7	93.8	75.9	62.8
3-SPAN	LIVE LOAD	204.0	170.0	145.7	127.5	113.3	94.9	78.4
4-SPAN	LIVE LOAD	204.0	170.0	145.7	127.5	109.4	88.6	73.2

CENTRAL-LOC[®] - 18" COVERAGE

24 Gauge (Fy = 50 KSI) - All loads in pounds per square foot.								
SPAN TYPE	LOAD TYPE	Span (ft)						
		2.5	3.0	3.5	4.0	4.5	5.0	5.5
1-SPAN	LIVE LOAD	272.0	226.7	194.3	170.0	145.8	118.1	97.6
2-SPAN	LIVE LOAD	272.0	226.7	194.3	158.8	125.5	101.6	84.0
3-SPAN	LIVE LOAD	272.0	226.7	194.3	170.0	156.9	127.1	105.0
4-SPAN	LIVE LOAD	272.0	226.7	194.3	170.0	146.5	118.6	98.0

Allowable loads are based on uniform span lengths and panel yield strength (Fy) of 50 ksi. LIVE LOAD is an allowable live load limited by shear & bending or web crippling. Above loads consider a maximum deflection ratio of L/180. Weight of the panel has not been deducted from allowable loads. Contact CSMI for wind uplift values.

CENTRAL-LOC[®] ENGINEERING

IMPORTANT - READ THIS FIRST



Application and design details are for illustration purposes only, and may not be appropriate for all environmental conditions or building designs. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices.

Central-Loc is a snap together system. Use of a mechanical seaming tool on the Central-Loc system will void all warranties.

In order to design, quote or order a Central-Loc roof system, you must determine which system you need, based on building width and insulation requirements.

LOW FIXED SYSTEM

Double slope buildings 200' wide or less and single slope buildings 100' wide or less, with or without a 3/8" thermal spacer. See Insulation/Thermal Spacer Selection Chart below.

HIGH FIXED SYSTEM

Double slope buildings 200' wide or less and single slope buildings 100' wide or less, with 3/8", 5/8", or 1" thermal spacers. See Insulation/Thermal Spacer Selection Chart below.

Fixed systems utilize fixed clips that do not allow the roof panels to float on the substructure. For this reason, use fixed systems only on pre-engineered metal buildings with purlins, subject to the building width restrictions outlined above. Do not use fixed systems on buildings with bar joist construction, wood decks or metal decks.

LOW FLOATING SYSTEM

Double slope buildings up to 300' wide or single slope buildings up to 150' wide, with or without 3/8" thermal spacer. See Insulation/Thermal Spacer Selection Chart below.

HIGH FLOATING SYSTEM

Double slope buildings up to 300' wide or single slope buildings up to 150' wide, with 3/8", 5/8" or 1" thermal spacer. See Insulation/Thermal Spacer Selection Chart below.

Thermal calculations should be performed for each project to ensure that the thermal movement of the roof is not greater than the floating clip's capacity. Various densities of blanket insulation may affect the installation and or the appearance of a metal roof system. The installer is responsible for selecting the proper clip and thermal spacer for their conditions.

INSULATION/THERMAL SPACER SELECTION CHART		
Insulation Thickness	Low System	High System
No Insulation	3/8" Thermal Spacer	N/A
3" Insulation	N/A	1" Thermal Spacer
4" Insulation	N/A	5/8" Thermal Spacer
6" Insulation	N/A	3/8" Thermal Spacer

NOTES:

1. As with all standing seam roof systems, sound attenuation (example: blanket insulation) is required between the panel and the substructure to prevent "roof rumble" during windy conditions. Some composite roof systems may require additional acoustical consideration to ensure that thermal vibration noises are isolated from the building interior. Contact your architect and/or engineer for proper acoustical design.
2. All metal roof systems should be designed by a registered, professional engineer for loads specified by the governing code, including the higher pressures encountered at the edge zones of the roof.

UNDERWRITERS LABORATORIES APPROVAL

CENTRAL-LOC®

Construction number	Panel Width (Inches)	Gauge	Clip Type	Clip Spacing	Substrate	UL-2218 Impact Resistance	UL-263 Fire Rating	UL-580 Rating
165	24	24 min.	B	5'-0"	Open Framing	Class 4	Class A	Class 90
180B	24	24 min.	A	5'-0"	Composite	Class 4	Class A	Class 90
205	24	24 min.	A	5'-0"	Open Framing	Class 4	Class A	Class 90
205A	24	24 min.	B	5'-0"	Open Framing	Class 4	Class A	Class 90
286	24	24 min.	C	5'-0"	Plywood	Class 4	Class A	Class 90
308B	24	24 min.	A	5'-0"	Composite	Class 4	Class A	Class 90
534	24	24 min.	B	5'-0 1/4"	Open Framing	Class 4	Class A	Class 90
535	24	24 min.	A	5'-0 1/4"	Open Framing	Class 4	Class A	Class 90
536	24	24 min.	B	5'-0"	Composite	Class 4	Class A	Class 90
537	24	24 min.	B	5'-0 1/4"	Composite	Class 4	Class A	Class 90
541	24	26 min.	B	5'-0"	Plywood	Class 4	Class A	Class 90

Clip Type: A (Fixed or Floating); B (Floating); C (Utility).

NOTES:

1. Wind uplift test procedures are in accordance with Underwriters Laboratories Standard UL-580 under "Tests For Uplift Resistance of Roof Assemblies."
2. A detailed installation method is available for each Construction Number above and can be found in the UL Roofing Materials and Systems Directory or at <http://www.ul.com>. The panels must be installed in a certain manner to achieve the published results.
3. The panel qualifies for a Class A fire rating in compliance with Underwriters Laboratories Standard UL-263.
4. The panel system is listed under the following Fire Resistance Design Numbers: P224, P225, P227, P230, P233, P237, P265, P268, P508, P510, P512, P701, P711, P715, P717, P720, P722, P724, P726, P731, P734, P736, P801, P803, P814, P815, P819, P821, P823. Refer to the UL Fire Resistance Directory for specific construction methods and hourly ratings.
5. Central-Loc® panels carry a Class 4 rating under UL-2218 "Test Standard for Impact Resistance".

ICBO APPROVAL

The ICBO Evaluation Service, Inc., has approved the Central-Loc® roofing system details, engineering, calculations, computer printouts and product data. This information has been found to comply with 1997 UBC Code and is listed in evaluation report number ER-5409. A copy of this report is available on request.

FLORIDA BUILDING CODE PRODUCT APPROVAL

Roofing System details and engineering load tables have been examined by the State of Florida and comply with Florida Building Code Product Approval Number (FL 14016.1, 14026.1, 14026.2, 14026.3).

CENTRAL SEAM PLUS®

Central Seam Plus® is a field seamed trapezoidal roofing system available in 24" standard coverage and an optional 18" panel. Its floating clips allow for thermal roof expansion and contraction during extreme temperature changes. A factory applied sealant insures a weather-tight and secure lap. This panel can be used for both new construction and retrofit. Central Seam Plus is manufactured from Galvalume which offers two to four times the corrosion resistance of galvanized steel.

- Central Seam Plus begins and ends in the high, reducing the risk of leakage at the rake that can occur when finishing in the low.
- Factory applied hot melt seam and clip sealant
- Large selection of clip sizes to accommodate various types of construction and insulation thicknesses
- A standard clip allows for a total of two inches of thermal movement and is constructed from 14 gauge material. The clip provides a 3/8" or 1 3/8" clearance at the purlin to reduce water ponding on low pitch roofs. Constructed from 12 gauge material, this clip is an integral part of maintaining panel module.
- Tested in accordance with ASTM E-1680 (air infiltration) and ASTM E-1646 (water infiltration)
- Tested in accordance with ASTM E 1592
- Tested in accordance with UL580 meeting UL90 wind uplift requirements
- Panels can be pre-punched, combined with self-engaging backup plates for ease of installation.
- Reversible end-for-end panels so each side of the roof can be installed simultaneously.
- Panels are factory notched for ease of installation at the endlap
- Comprehensive step-by-step erection manuals come with each Standing Seam order.



CENTRAL SEAM PLUS®

Coverage Width -	24" with minor ribs - prepunched 6 holes or no punching 18" with minor ribs - prepunched 5 holes or no punching
Minimum Slope -	1/4:12
Panel Attachment -	Low, high (fixed or floating), or utility (no insulation clearance)
Panel Substrate -	Galvalume Plus® (standard)
Gauge -	24
Finishes -	Smooth with minor ribs
Panel Coating -	Kynar 500®/Hylar 5000®

Note: Oil canning in the flat area of the panels is common to the industry and does not affect the integrity of the panel. Therefore, oil canning is not a reason for rejection.

Seamer rental information available on our website

ALLOWABLE LIVE LOADS

CENTRAL SEAM PLUS® - 24" COVERAGE

24 Gauge (Fy = 50 KSI) - All loads in pounds per square foot.								
SPAN TYPE	LOAD TYPE	Span (ft)						
		2.5	3.0	3.5	4.0	4.5	5.0	5.5
1-SPAN	LIVE LOAD	204.0	170.0	145.7	127.5	113.3	102.0	86.3
2-SPAN	LIVE LOAD	204.0	170.0	145.7	123.4	97.5	79.0	65.3
3-SPAN	LIVE LOAD	204.0	170.0	145.7	127.5	113.3	98.7	81.6
4-SPAN	LIVE LOAD	204.0	170.0	145.7	127.5	113.3	92.2	76.2

CENTRAL SEAM PLUS® - 18" COVERAGE

24 Gauge (Fy = 50 KSI) - All loads in pounds per square foot.								
SPAN TYPE	LOAD TYPE	Span (ft)						
		2.5	3.0	3.5	4.0	4.5	5.0	5.5
1-SPAN	LIVE LOAD	272.0	226.7	194.3	170.0	151.1	131.9	109.0
2-SPAN	LIVE LOAD	272.0	226.7	194.3	163.8	129.4	104.8	86.6
3-SPAN	LIVE LOAD	272.0	226.7	194.3	170.0	151.1	131.0	108.3
4-SPAN	LIVE LOAD	272.0	226.7	194.3	170.0	151.0	122.3	101.1

Allowable loads are based on uniform span lengths. LIVE LOAD is limited by bending, shear, combined shear & bending, or web crippling. Above loads consider a maximum deflection ratio of L/180. Panel weight has not been deducted from allowable loads. The use of any field seaming machine other than those provided by the manufacturer will void all engineering data. Contact CSMI for wind uplift values.

CENTRAL SEAM PLUS® ENGINEERING

IMPORTANT - READ THIS FIRST



Application and design details are for illustration purposes only, and may not be appropriate for all environmental conditions or building designs. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices.

The use of any field seaming machine other than that rented from our approved seamer listed on our website may damage the panels, void all warranties and will void all engineering data.

In order to design, quote or order a Central Seam Plus roof system, you must determine which system you need, based on building width and insulation requirements.

LOW FLOATING SYSTEM

Double slope buildings up to 300' wide or single slope buildings up to 150' wide, with or without 3/8" thermal spacer. See Insulation/Thermal Spacer Selection Chart below.

HIGH FLOATING SYSTEM

Double slope buildings up to 300' wide or single slope buildings up to 150' wide, with 3/8", 5/8" or 1" thermal spacer. See Insulation/Thermal Spacer Selection Chart below.

Thermal calculations should be performed for each project to ensure that the thermal movement of the roof is not greater than the floating clip's capacity. Various densities of blanket insulation may affect the installation and or the appearance of a metal roof system. The installer is responsible for selecting the proper clip and thermal spacer for their conditions.

INSULATION/THERMAL SPACER SELECTION CHART		
Insulation Thickness	Low System	High System
No Insulation	3/8" Thermal Spacer	N/A
3" Insulation	N/A	1" Thermal Spacer
4" Insulation	N/A	5/8" Thermal Spacer
6" Insulation	N/A	3/8" Thermal Spacer

NOTES:

- As with all standing seam roof systems, sound attenuation (example: blanket insulation) is required between the panel and the substructure to prevent "roof rumble" during windy conditions. Some composite roof systems may require additional acoustical consideration to ensure that thermal vibration noises are isolated from the building interior. Contact your architect and/or engineer for proper acoustical design.
- The following are examples of conditions that may cause condensation: (A) Projects where outside winter temperatures below 40°F are anticipated and where average winter interior relative humidity of 45% or greater is expected. (B) Building usages with high humidity interiors, such as indoor swimming pools, textile manufacturing operations, food paper or other wet-process industrial plants. (C) Construction elements that may release moisture after the roof is installed, such as interior concrete and masonry, plaster finishes and fuel burning heaters. Manufacturer is not responsible for determining if condensation will be an issue on any particular application.

THERMAL SPACER DISCLAIMER

The above thermal spacer chart is intended to be used as a general guideline only. Because of the various densities of insulation currently available, the manufacturer cannot guarantee that this chart will be accurate in all situations. Further, the manufacturer does not specifically require that the roofing contractor use thermal spacers with its Central Seam Plus roof system. However, please review the following information:

- Although the manufacturer does not require a thermal spacer, the architect or building owner may.
- In certain environments, the compression of the fiberglass insulation, without a thermal spacer, may create a thermal break which can cause condensation to form on the purlins/joists.
- On uninsulated buildings, eliminating the thermal spacer: (1) may cause "roof rumble" and (2) you may encounter problems holding panel module.
- When a high clip is used without a thermal spacer: (1) you may encounter problems holding panel module and (2) foot traffic on the panel ribs may result in bent clips.
- Using a low clip with too much insulation or too thick a thermal spacer: (1) may cause "purlin read" (2) may cause difficulty in properly installing the panel side laps, and (3) you may encounter problems holding panel module.

UNDERWRITERS LABORATORIES APPROVAL

CENTRAL SEAM PLUS®

Construction number	Panel Width (Inches)	Gauge	Clip Type	Clip Spacing	Substrate	UL-2218 Impact Resistance	UL-263 Fire Rating	UL-580 Rating
165	24	24 min.	B		Open Framing	Class 4	Class A	Class 90
180C	24	24 min.	B	5'-0"	Composite	Class 4	Class A	Class 90
287	24	24 min.	B	5'-0"	Open Framing	Class 4	Class A	Class 90
308A	24	24 min.	B	5'-0"	Composite	Class 4	Class A	Class 90
450	24	24 min.	B	5'-0"	Open Framing	Class 4	Class A	Class 90
538	24	24 min.	A, B	5'-0 1/4"	Open Framing	Class 4	Class A	Class 90
539	24	24 min.	A, B	5'-0"	Composite	Class 4	Class A	Class 90
540	24	24 min.	A, B	5'-0"	Composite	Class 4	Class A	Class 90

Clip Type: A (Fixed or Floating); B (Floating); C (Utility).

NOTES:

1. Test procedures are in accordance with Underwriters Laboratories Standard UL-580 under "Tests for Uplift Resistance of Roof Assemblies".
2. A detailed installation method is available for each Construction Number above and can be found in the UL Roofing Materials and Systems Directory. The panels must be installed in a certain manner to achieve the published results when installed over a Class A substructure.
3. The panel qualifies for a Class A fire rating in compliance with Underwriters Laboratories Standard UL-263.
4. The panel system is listed under the following Fire Resistance Design Numbers: P224, P225, P227, P230, P233, P237, P265, P268, P508, P510, P512, P701, P711, P715, P717, P720, P722, P724, P726, P731, P734, P736, P801, P803, P814, P815, P819, P821, and P823. Refer to the UL Fire Resistance Directory for specific construction methods and hourly ratings.
5. Construction Number 450 includes the use of a domed skylight.

ICBO APPROVAL

The ICBO Evaluation Service, Inc., has approved the Central Seam Plus roofing system details, engineering, calculations, computer printouts and product data. This information has been found to comply with 1997 UBC Code and is listed in evaluation report number ER-5409. A copy of this report is available on request.

FLORIDA BUILDING CODE PRODUCT APPROVAL

Central Seam Plus Roofing System details and engineering load tables have been examined by the State of Florida and comply with Florida Building Code Product Approval Number (FL14016.2, 14016.3)

SQUARE FEET PER PANEL

24" COVERAGE

FEET	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"
1	2.00	2.17	2.33	2.50	2.67	2.83	3.00	3.17	3.33	3.50	3.67	3.83
2	4.00	4.17	4.33	4.50	4.67	4.83	5.00	5.17	5.33	5.50	5.67	5.83
3	6.00	6.17	6.33	6.50	6.67	6.83	7.00	7.17	7.33	7.50	7.67	7.83
4	8.00	8.17	8.33	8.50	8.67	8.83	9.00	9.17	9.33	9.50	9.67	9.83
5	10.00	10.17	10.33	10.50	10.67	10.83	11.00	11.17	11.33	11.50	11.67	11.83
6	12.00	12.17	12.33	12.50	12.67	12.83	13.00	13.17	13.33	13.50	13.67	13.83
7	14.00	14.17	14.33	14.50	14.67	14.83	15.00	15.17	15.33	15.50	15.67	15.83
8	16.00	16.17	16.33	16.50	16.67	16.83	17.00	17.17	17.33	17.50	17.67	17.83
9	18.00	18.17	18.33	18.50	18.67	18.83	19.00	19.17	19.33	19.50	19.67	19.83
10	20.00	20.17	20.33	20.50	20.67	20.83	21.00	21.17	21.33	21.50	21.67	21.83
11	22.00	22.17	22.33	22.50	22.67	22.83	23.00	23.17	23.33	23.50	23.67	23.83
12	24.00	24.17	24.33	24.50	24.67	24.83	25.00	25.17	25.33	25.50	25.67	25.83
13	26.00	26.17	26.33	26.50	26.67	26.83	27.00	27.17	27.33	27.50	27.67	27.83
14	28.00	28.17	28.33	28.50	28.67	28.83	29.00	29.17	29.33	29.50	29.67	29.83
15	30.00	30.17	30.33	30.50	30.67	30.83	31.00	31.17	31.33	31.50	31.67	31.83
16	32.00	32.17	32.33	32.50	32.67	32.83	33.00	33.17	33.33	33.50	33.67	33.83
17	34.00	34.17	34.33	34.50	34.67	34.83	35.00	35.17	35.33	35.50	35.67	35.83
18	36.00	36.17	36.33	36.50	36.67	36.83	37.00	37.17	37.33	37.50	37.67	37.83
19	38.00	38.17	38.33	38.50	38.67	38.83	39.00	39.17	39.33	39.50	39.67	39.83
20	40.00	40.17	40.33	40.50	40.67	40.83	41.00	41.17	41.33	41.50	41.67	41.83
21	42.00	42.17	42.33	42.50	42.67	42.83	43.00	43.17	43.33	43.50	43.67	43.83
22	44.00	44.17	44.33	44.50	44.67	44.83	45.00	45.17	45.33	45.50	45.67	45.83
23	46.00	46.17	46.33	46.50	46.67	46.83	47.00	47.17	47.33	47.50	47.67	47.83
24	48.00	48.17	48.33	48.50	48.67	48.83	49.00	49.17	49.33	49.50	49.67	49.83
25	50.00	50.17	50.33	50.50	50.67	50.83	51.00	51.17	51.33	51.50	51.67	51.83
26	52.00	52.17	52.33	52.50	52.67	52.83	53.00	53.17	53.33	53.50	53.67	53.83
27	54.00	54.17	54.33	54.50	54.67	54.83	55.00	55.17	55.33	55.50	55.67	55.83
28	56.00	56.17	56.33	56.50	56.67	56.83	57.00	57.17	57.33	57.50	57.67	57.83
29	58.00	58.17	58.33	58.50	58.67	58.83	59.00	59.17	59.33	59.50	59.67	59.83
30	60.00	60.17	60.33	60.50	60.67	60.83	61.00	61.17	61.33	61.50	61.67	61.83
31	62.00	62.17	62.33	62.50	62.67	62.83	63.00	63.17	63.33	63.50	63.67	63.83
32	64.00	64.17	64.33	64.50	64.67	64.83	65.00	65.17	65.33	65.50	65.67	65.83
33	66.00	66.17	66.33	66.50	66.67	66.83	67.00	67.17	67.33	67.50	67.67	67.83
34	68.00	68.17	68.33	68.50	68.67	68.83	69.00	69.17	69.33	69.50	69.67	69.83
35	70.00	70.17	70.33	70.50	70.67	70.83	71.00	71.17	71.33	71.50	71.67	71.83
36	72.00	72.17	72.33	72.50	72.67	72.83	73.00	73.17	73.33	73.50	73.67	73.83
37	74.00	74.17	74.33	74.50	74.67	74.83	75.00	75.17	75.33	75.50	75.67	75.83
38	76.00	76.17	76.33	76.50	76.67	76.83	77.00	77.17	77.33	77.50	77.67	77.83
39	78.00	78.17	78.33	78.50	78.67	78.83	79.00	79.17	79.33	79.50	79.67	79.83
40	80.00	80.17	80.33	80.50	80.67	80.83	81.00	81.17	81.33	81.50	81.67	81.83

SQUARE FEET PER PANEL

18" COVERAGE

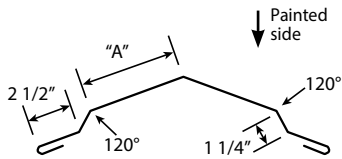
FEET	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"
1	1.50	1.63	1.75	1.88	2.00	2.13	2.25	2.38	2.50	2.63	2.75	2.88
2	3.00	3.13	3.25	3.38	3.50	3.63	3.75	3.88	4.00	4.13	4.25	4.38
3	4.50	4.63	4.75	4.88	5.00	5.13	5.25	5.38	5.50	5.63	5.75	5.88
4	6.00	6.13	6.25	6.38	6.50	6.50	6.63	6.75	6.88	7.13	7.25	7.38
5	7.50	7.63	7.75	7.88	8.00	8.13	8.25	8.38	8.50	8.63	8.75	8.88
6	9.00	9.13	9.25	9.38	9.50	9.63	9.75	9.88	10.00	10.13	10.25	10.38
7	10.50	10.63	10.75	10.88	11.00	11.13	11.25	11.38	11.50	11.63	11.75	11.88
8	12.00	12.13	12.25	12.38	12.50	12.63	12.75	12.88	13.00	13.13	13.25	13.38
9	13.50	13.63	13.75	13.88	14.00	14.13	14.25	14.38	14.50	14.63	14.75	14.88
10	15.00	15.13	15.25	15.38	15.50	15.63	15.75	15.88	16.00	16.13	16.25	16.38
11	16.50	16.63	16.75	16.88	17.00	17.13	17.25	17.38	17.50	17.63	17.75	17.88
12	18.00	18.13	18.25	18.38	18.50	18.63	18.75	18.88	19.00	19.13	19.25	19.38
13	19.50	19.63	19.75	19.88	20.00	20.13	20.25	20.38	20.50	20.63	20.75	20.88
14	21.00	21.13	21.25	21.38	21.50	21.63	21.75	21.88	22.00	22.13	22.25	22.38
15	22.50	22.63	22.75	22.88	23.00	23.13	23.25	23.38	23.50	23.63	23.75	23.88
16	24.00	24.13	24.25	24.38	24.50	24.63	24.75	24.88	25.00	25.13	25.25	25.38
17	25.50	25.63	25.75	25.88	26.00	26.13	26.25	26.38	26.50	26.63	26.75	26.88
18	27.00	27.13	27.25	27.38	27.50	27.63	27.75	27.88	28.00	28.13	28.25	28.38
19	28.50	28.63	28.75	28.88	29.00	29.13	29.25	29.38	29.50	29.63	29.75	29.88
20	30.00	30.13	30.25	30.38	30.50	30.63	30.75	30.88	31.00	31.13	31.25	31.38
21	31.50	31.63	31.75	31.88	32.00	32.13	32.25	32.38	32.50	32.63	32.75	32.88
22	33.00	33.13	33.25	33.38	33.50	33.63	33.75	33.88	34.00	34.13	34.25	34.38
23	34.50	34.63	34.75	34.88	35.00	35.13	35.25	35.38	35.50	35.63	35.75	35.88
24	36.00	36.13	36.25	36.38	36.50	36.63	36.75	36.88	37.00	37.13	37.25	37.38
25	37.50	37.63	37.75	37.88	38.00	38.13	38.25	38.38	38.50	38.63	38.75	38.88
26	39.00	39.13	39.25	39.38	39.50	39.63	39.75	39.88	40.00	40.13	40.25	40.38
27	40.50	40.63	40.75	40.88	41.00	41.13	41.25	41.38	41.50	41.63	41.75	41.88
28	42.00	42.13	42.25	42.38	42.50	42.63	42.75	42.88	43.00	43.13	43.25	43.38
29	43.50	43.63	43.75	43.88	44.00	44.13	44.25	44.38	44.50	44.63	44.75	44.88
30	45.00	45.13	45.25	45.38	45.50	45.63	45.75	45.88	46.00	46.13	46.25	46.38
31	46.50	46.63	46.75	46.88	47.00	47.13	47.25	47.38	47.50	47.63	47.75	47.88
32	48.00	48.13	48.25	48.38	48.50	48.63	48.75	48.88	49.00	49.13	49.25	49.38
33	49.50	49.63	49.75	49.88	50.00	50.13	50.25	50.38	50.50	50.63	50.75	50.88
34	51.00	51.13	51.25	51.38	51.50	51.63	51.75	51.88	52.00	52.13	52.25	52.38
35	52.50	52.63	52.75	52.88	53.00	53.13	53.25	53.38	53.50	53.63	53.75	53.88
36	54.00	54.13	54.25	54.38	54.50	54.63	54.75	54.88	55.00	55.13	55.25	55.38
37	55.50	55.63	55.75	55.88	56.00	56.13	56.25	56.38	56.50	56.63	56.75	56.88
38	57.00	57.13	57.25	57.38	57.50	57.63	57.75	57.88	58.00	58.13	58.25	58.38
39	58.50	58.63	58.75	58.88	59.00	59.13	59.25	59.38	59.50	59.63	59.75	59.88
40	60.00	60.13	60.25	60.38	60.50	60.63	60.75	60.88	61.00	61.13	61.25	61.38

TRIMS

24 GA. TRIMS ARE KYNAR PAINT SYSTEM.
26 GA. TRIMS ARE SMP PAINT SYSTEM.

Color matching between Kynar-coated panels and SMP trim is not exact and will fade at different rates. For best match, use 24 ga. Kynar trims.
Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff. All angles are 90° or 45° unless otherwise noted.

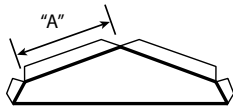
RIDGE CAP FLOATING



PART #	GAUGE	DIM. "A"	LENGTH	GIRTH	ROOF SLOPE
SS200RCP102(color)	24	3 1/2"	10'2"	15.5"	1/4-2 - 2:12
SS202RCP102(color)	24	4 1/2"	10'2"	17.5"	2 9/16 - 4:12
SS213RCP102(color)	24	6 1/2"	10'2"	21.5"	1/4-2 - 2:12
SS214RCP102(color)	24	7 1/2"	10'2"	23.5"	2 9/16 - 4:12
SS200(color)	26	3 1/2"	10'2"	15.5"	1/4-2 - 2:12
SS202(color)	26	4 1/2"	10'2"	17.5"	2 9/16 - 4:12
SS213(color)	26	6 1/2"	10'2"	21.5"	1/4-2 - 2:12
SS214(color)	26	7 1/2"	10'2"	23.5"	2 9/16 - 4:12

Specify roof slope. Use with ventilator - 24" peak purlin spacing.

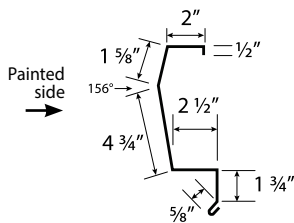
RIDGE END CAP



SS201RCE(color)	24	3 1/2"	use with SS200RCP102(color)
SS203RCE(color)	24	4 1/2"	use with SS202RCP102(color)
SS896RCE(color)	24	6 1/2"	use with SS213RCP102(color)
SSRCE(color)	24	7 1/2"	use with SS214RCP102(color)
SS201(color)	26	3 1/2"	use with SS200
SS203(color)	26	4 1/2"	use with SS202
SS896(color)	26	6 1/2"	use with SS213
SS897(color)	26	7 1/2"	use with SS214

Specify roof slope.

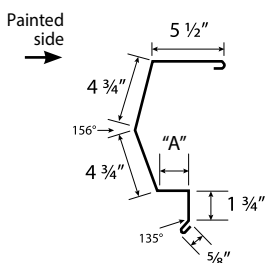
SCULPTURED EAVE TRIM



SSEA102(color)	24	n/a	10'2"	14.25"	N/A
SSEA204(color)	24	n/a	20'4"	14.25"	N/A
SS250(color)	26	n/a	10'2"	14.25"	N/A
SS251(color)	26	n/a	20'4"	14.25"	N/A

Specify roof slope. Specify open hem when using SS338 Continuous Cleat.

SCULPTURED HIGH SIDE EAVE TRIM



SSHI102-2(color)	24	2"	10'2"	20.375"	1/4 - 1 3/4:12
SSHI102>2(color)	24	3 11/16"	10'2"	22.0625"	1 3/4 - 4:12
SSHI204-2(color)	24	2"	20'4"	20.375"	1/4 - 1 3/4:12
SSHI204>2(color)	24	3 11/16"	20'4"	22.0625"	1 3/4 - 4:12
SS265A(color)	26	2"	10'2"	20.375"	1/4 - 1 3/4:12
SS265B(color)	26	3 11/16"	10'2"	22.0625"	1 3/4 - 4:12
SS266A(color)	26	2"	20'4"	20.375"	1/4 - 1 3/4:12
SS266B(color)	26	3 11/16"	20'4"	22.0625"	1 3/4 - 4:12

Specify roof slope.

24 GA. TRIMS ARE KYNAR PAINT SYSTEM.

26 GA. TRIMS ARE SMP PAINT SYSTEM.

TRIMS

Color matching between Kynar-coated panels and SMP trim is not exact and will fade at different rates. For best match, use 24 ga. Kynar trims.
Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff. All angles are 90° or 45° unless otherwise noted.

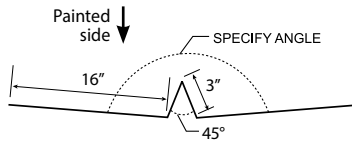
	PART #	GAUGE	DIM. "A"	LENGTH	GIRTH	ROOF SLOPE
SCULPTURED RAKE						
	SSRA102(color)	24	n/a	10'2"	19.25"	n/a
	SSRA204(color)	24	n/a	20'4"	19.25"	n/a
	SS110(color)	26	n/a	10'2"	19.25"	n/a
	SS111(color)	26	n/a	20'4"	19.25"	n/a
RAKE SLIDE						
	SSRS102(color)	24	n/a	10'2"	2.75"	n/a
	SS115(color)	26	n/a	10'2"	2.75"	n/a
PARAPET HIGH SIDE EAVE FLASH - FLOATING						
	SS275EF102(color)	24	3.5"	10'2"	12.5"	specify pitch
	SSEF102(color)	24	4.5"	10'2"	13.5"	specify pitch
	SS275	26	3.5"	10'2"	12.5"	specify pitch
	SS274	26	4.5"	10'2"	13.5"	specify pitch
PARAPET RAKE FLASH						
	SS285SF102(color)	24	3"	10'2"	8"	n/a
	SSSF102(color)	24	5"	10'2"	10"	n/a
	SSPRF102(color)	24	7"	10'2"	12"	n/a
	SS285	26	3"	10'2"	8"	n/a
	SS286	26	5"	10'2"	10"	n/a
	SS287	26	7"	10'2"	12"	n/a
PARAPET RAKE CLEAT						
	SSPRC102(color)	24	.75"	10'2"	2.25"	n/a
	SS290(color)	26	.75"	10'2"	2.25"	n/a

TRIMS

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26 GA. TRIMS ARE SMP PAINT SYSTEM.

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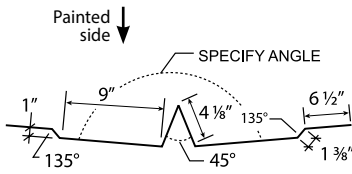
LOW VALLEY



PART #	GAUGE	DIM. "A"	LENGTH	GIRTH	ROOF SLOPE
SSVAL102(color)	24	n/a	10'2"	38"	n/a
SSVAL204(color)	24	n/a	20'4"	38"	n/a
SS700(color)	26	n/a	10'2"	38"	n/a
SS702(color)	26	n/a	20'4"	38"	n/a

Specify roof slope.

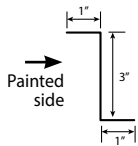
HIGH VALLEY



SSHVAL102(color)	24	n/a	10'2"	41.5"	n/a
SSHVAL204(color)	24	n/a	20'4"	41.5"	n/a
SS712(color)	26	n/a	10'2"	41.5"	n/a
SS713(color)	26	n/a	20'4"	41.5"	n/a

Specify roof slope.

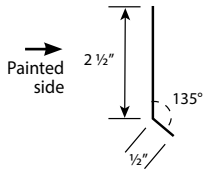
ZEE CLOSURE



SSZEE102(color)	24	n/a	10'2"	5"	n/a
SS360(color)	26	n/a	10'2"	5"	n/a

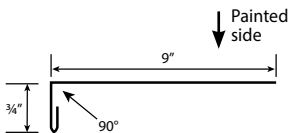
Use at hip conditions.

CONTINUOUS CLEAT



SSCC102(color)	24	n/a	10'2"	3"	n/a
SS338(color)	26	n/a	10'2"	3"	n/a

VARIABLE TERMINATION



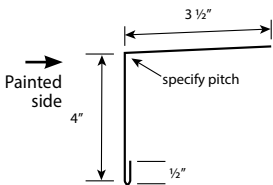
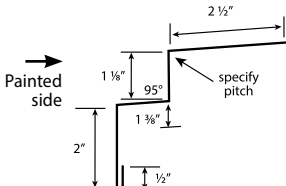
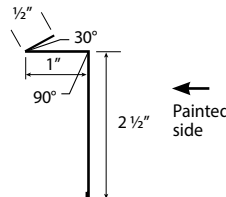
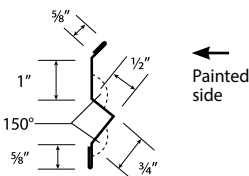

SSVT102(color)	24	n/a	10'2"	10.25"	n/a
SS117(color)	26	n/a	14'2"	10.25"	n/a

24 GA. TRIMS ARE KYNAR PAINT SYSTEM.

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TRIMS

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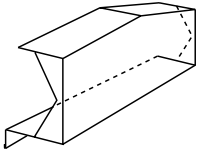
	PART #	GAUGE	DIM. "A"	LENGTH	GIRTH	ROOF SLOPE
BOX PANEL CAP TRIM						
	SSPC102(color)	24	n/a	10'2"	8"	n/a
	SS272(color)	26	n/a	10'2"	8"	n/a
	Specify roof slope.					
OFFSET PANEL CAP TRIM						
	SSOPC102(color)	24	n/a	10'2"	7.5"	n/a
	SS271(color)	26	n/a	10'2"	7.5"	n/a
	Specify roof slope.					
COUNTERFLASH						
	SSCF102(color)	24	n/a	10'2"	4.5"	n/a
	SS341(color)	26	n/a	10'2"	4.5"	n/a
	Specify roof slope.					
ALTERNATIVE COUNTERFLASH						
	SSACF102(color)	24	n/a	10'2"	4.5"	n/a
	SS343(color)	26	n/a	10'2"	4.5"	n/a
FLAT SHEETS						
	FSK102(color)	24		10'2"	additional pallet charge will apply	
	48.5"					

TRIMS

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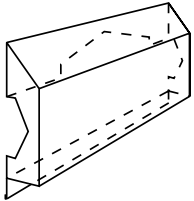
FIXED PEAK BOX



PART #	GAUGE	DIM. "A"	LENGTH	GIRTH	ROOF SLOPE
SSFXPB(color)	24	n/a	1'6"	21"	½-3 ¾ / 4:12
SS121FXPB(color)	24	n/a	2'6"	21"	½-3 ¾ / 4:12
SS120(color)	26	n/a	1'6"	21"	½ - 6:12
SS121(color)	26	n/a	2'6"	21"	½ - 6:12

Specify roof slope. Use with Central-Loc roof system. Use with SS110 or SS111 sculptured rake trim.

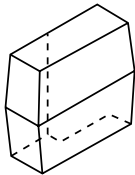
FLOATING PEAK BOX



SSPB102(color)	24	n/a	2'1"	33.5"	¼ - 6:12
SS126PB(color)	24	n/a	2'6"	37.25"	¼ - 6:12
SS125(color)	26	n/a	2'1"	33.5"	¼ - 6:12
SS126(color)	26	n/a	2'6"	37.25"	¼ - 6:12

Specify roof slope. Kit includes cinch angles and flexible membrane.
Use with SS110 or SS111 sculptured rake trim. Check with sales representative for lead times.

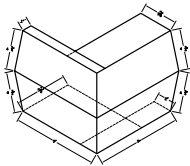
SCULPTURED RAKE END



SSRE(color)	24	n/a	n/a	n/a	n/a
SS134(color)	26	n/a	n/a	n/a	n/a

Use with SS110 sculptured rake trim.
Specify left or right.

OUTSIDE CORNER BOX

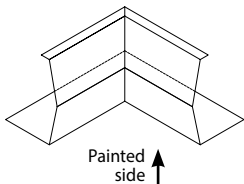


Painted side
←

SSOCB(color)	24	n/a	18"	16"	n/a
SS230(color)	26	n/a	18"	16"	n/a

Specify roof slope.

INSIDE CORNER BOX



Painted side
↑

SSICB(color)	24
SS231(color)	26

Specify roof slope.

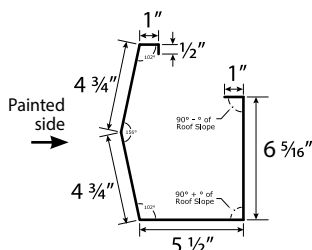
24 GA. TRIMS ARE KYNAR PAINT SYSTEM.

26 GA. TRIMS ARE SMP PAINT SYSTEM.

GUTTERS

Color matching between Kynar-coated panels and SMP trim is not exact and will fade at different rates. For best match, use 24 ga. Kynar trims.
Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff. All angles are 90° or 45° unless otherwise noted.

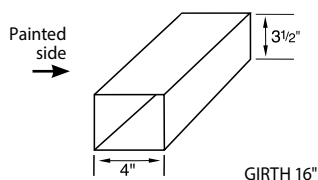
SCULPTURED GUTTER



PART #	GAUGE	LENGTH	GIRTH	ROOF SLOPE
SSGU102(color)	24	10'2"	23 13/16"	1/4 - 4:12
SSGU204(color)	24	20'4"	23 13/16"	1/4 - 4:12
SS240A(color)	26	10'2"	23 13/16"	1/4 - 4:12
SS241A(color)	26	20'4"	23 13/16"	1/4 - 4:12

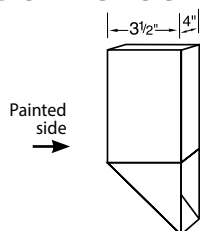
Specify roof slope.
Use in installations where eave plates are not used.

DOWNSPOUT W/O KICKOUT



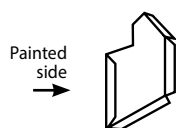
PART #	GAUGE	LENGTH	PART #	GAUGE	LENGTH
CSLDS102(color)	24	10'2"	DS102(color)	26	10'2"
CSLDS122(color)	24	12'2"	DS122(color)	26	12'2"
CSLDS142(color)	24	14'2"	DS142(color)	26	14'2"
CSLDS162(color)	24	16'2"	DS162(color)	26	16'2"
CSLDS182(color)	24	18'2"	DS182(color)	26	18'2"
CSLDS204(color)	24	20'4"	DS204(color)	26	20'4"

DOWNSPOUT WITH KICKOUT

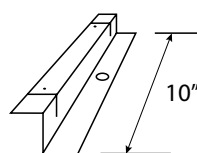


CSLDK102(color)	24	10'2"	DK102(color)	26	10'2"
CSLDK122(color)	24	12'2"	DK122(color)	26	12'2"
CSLDK142(color)	24	14'2"	DK142(color)	26	14'2"
CSLDK162(color)	24	16'2"	DK162(color)	26	16'2"
CSLDK182(color)	24	18'2"	DK182(color)	26	18'2"
CSLDK204(color)	24	20'4"	DK204(color)	26	20'4"

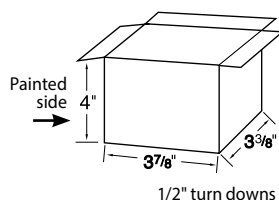
GUTTER END CAP



SSGEN(color)	24	GUTTER STRAP	CL246	24
SS245(color)	26			
specify roof slope. Left and right.				

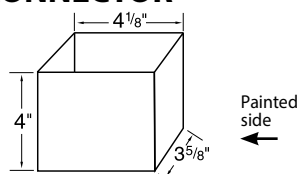


DOWNSPOUT OUTLET



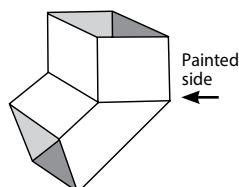
DSOUTLET(color)	26	DOWNSPOUT CONNECTOR	CSLDSLVE(color)	24
specify pitch.				

DOWNSPOUT CONNECTOR

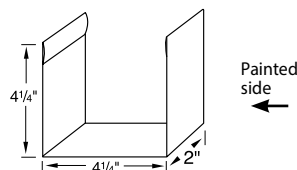


DSLVE(color)	26
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DOWNSPOUT ELBOW

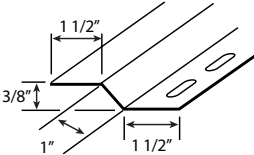
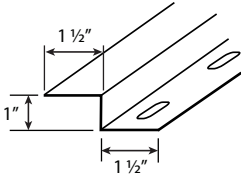
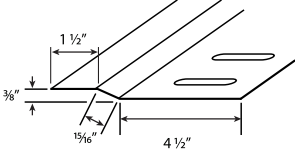
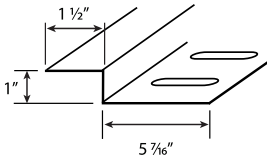


CSLDSE45(color)	24	DOWNSPOUT STRAP	CSLDSS(color)	24
DSE45(color)	26			
DSE90(color)	26		DSS2(color)	26



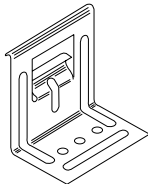
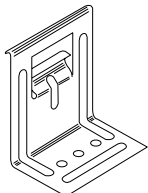
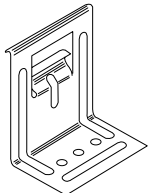
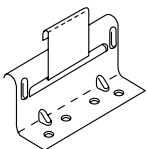
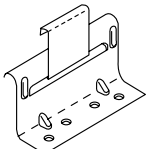
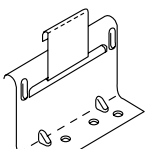
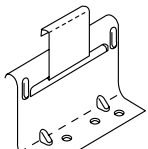
EAVE PLATES

*Longer lead times may apply.

	PART #	FINISH	GAUGE	SIZE	LENGTH	WEIGHT
EAVE PLATE - LOW 	CL7600	Red Oxide	14	1 1/2" x 3/8" x 1 1/2"	8'0"	7.75 lbs.
	optional - use with low clips					
EAVE PLATE - HIGH 	CL7616	Red Oxide	14	1 1/2" x 1" x 1 1/2"	8'0"	7.75 lbs.
	Mandatory - use with high clips.					
FLOATING EAVE PLATE - LOW 	CL7617	Red Oxide	14	1 1/2" x 3/8" x 4 1/2"	8'0"	13.65 lbs.
	Use at eave when attaching panels to substructure at mid-point. Use with 8 x 5 x 5 Eave Strut.					
FLOATING EAVE PLATE - HIGH 	CL7618*	Red Oxide	14	1 1/2" x 1" x 5 7/16"	8'0"	15.62 lbs.
	Use at eave when attaching panels to substructure at mid-point. Use with 8 x 5 x 5 Eave Strut.					

CLIPS

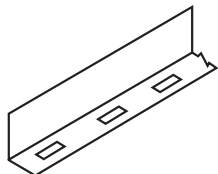
*Longer lead times may apply.

	PART #	SYSTEM	GAUGE	HEIGHT	LENGTH	WEIGHT
CLIP - LOW FIXED						
	CL200	Central-Loc	n/a	3 3⁄8"	n/a	.13 lbs.
	Clip fasteners must be ordered separately.					
CLIP - HIGH FIXED						
	CL204	Central-Loc	n/a	4 3⁄8"	n/a	.24 lbs.
	Clip fasteners must be ordered separately.					
CLIP - UTILITY						
	CL208*	Central-Loc	n/a	3"	n/a	.12 lbs.
	Clip fasteners must be ordered separately. For applications that do not require 3/8" clearance provided by the low and high clips. For use over solid substrate only.					
CLIP - 2" LOW SLIDING						
	CL2102	Central-Loc	n/a	3 3⁄8"	n/a	.56 lbs.
	CSP2122*	Central Seam Plus	n/a	3 3⁄8"	n/a	.56 lbs.
		Clip fasteners must be ordered separately. 1 3/8" movement in each direction. Specify system.				
CLIP - 2" HIGH SLIDING						
	CL2104	Central-Loc	n/a	4 3⁄8"	n/a	.68 lbs.
	CSP2124	Central Seam Plus	n/a	4 3⁄8"	n/a	.68 lbs.
		Clip fasteners must be ordered separately. 1 3/8" movement in each direction. Specify system.				

RAKE SUPPORT

*Longer lead times may apply.

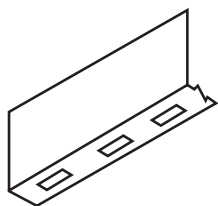
RAKE SUPPORT - LOW



PART #	FINISH	GAUGE	SIZE	LENGTH	WEIGHT
CL7710	Red Oxide	14	3 3/8" x 2" x 2 1/2"	20'0"	31.00 lbs.

Use with low clips.

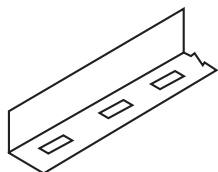
RAKE SUPPORT - HIGH



CL7720	Red Oxide	14	4 3/8" x 1" x 1 1/2"	20'0"	31.00 lbs.
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Use with high clips.

RAKE SUPPORT - UTILITY



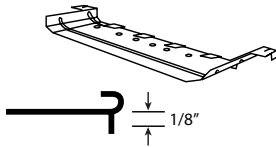
CL7722*	Red Oxide	14	3" x 2" x 2 7/8"	20'0"	31.00 lbs.
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Use with utility clips.

ACCESSORIES

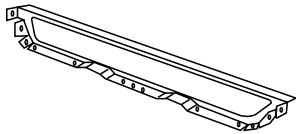
*Longer lead times may apply.

BACK UP PLATE MODIFIED



PART #	FINISH	GAUGE	SIZE	LENGTH	WEIGHT
CL7760*	Red Oxide	24	24"	16'0"	2.45 lbs.
CL7769*	Red Oxide	24	18"	16'0"	2.00 lbs.

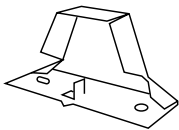
OUTSIDE CLOSURE



CL430(color)		24	24"	.81 lbs.
CL432(color)		24	18"	.65 lbs.

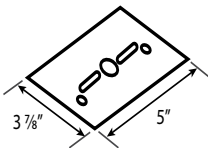
Painted closures will have longer lead time.

METAL CLOSURE - INSIDE



CL426(color)	Galvalume	18	3/4"	.22 lbs.
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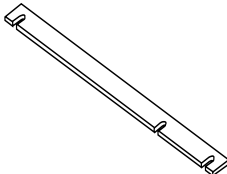
BEARING PLATE



CL7500	Red Oxide	16	3/4"	.32 lbs.
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Use with all clips.
For use over ridged board installation.

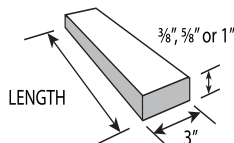
SPACER TOOL



CL619	Aluminum	n/a		26"	.20 lbs.
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For use with Central-Loc

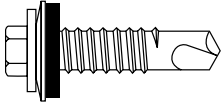
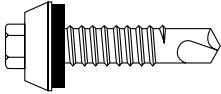
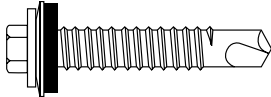
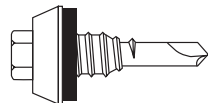
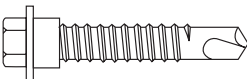

THERMAL SPACER



CL575	Polystyrene	n/a	1" x 3"	23 7/8"	.08 lbs.
CL576	Polystyrene	n/a	5/8" x 3"	23 7/8"	.07 lbs.
CL577	Polystyrene	n/a	3/8" x 3"	23 7/8"	.06 lbs.

Specify system

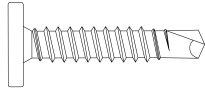
ACCESSORIES

	PART #	HEAD SIZE	TYPE	#PER BAG
FASTENER #1 ¼" - 14 X 1" Driller ⅝" Hex Washer Head w/ ⅝" O.D. Washer	1FASTENER	⅝"	Driller	250
	Add \$25 paint setup charge. • Clip to purlin with up to 4" insulation thickness. • Eave plate to eave strut. • Inside closure to eave plate or eave strut. • Rake support to purlin (fixed system only).			
FASTENER #1E ¼" - 14 X 1" Long life driller ⅝" Hex Washer Head w/Sealing Washer	1EFASTENER	⅝"	Long Life Driller	2,000
	Add \$25 paint setup charge. • Panel to eave plate or eave strut. • Rake trim to roof panel. • Outside Closure • Endlap			
FASTENER #1F ¼" - 14 X 1½" Driller ⅝" Hex Washer Head w/ ⅝" O.D. Washer	1FFASTENER	⅝"	Driller	2,000
	Add \$25 paint setup charge. • Clip to purlin with up to 4" insulation thickness.			
FASTENER #4 ¼" - 14 X 7⁄8" Long life lap TEK ⅝" Hex Washer Head w/Sealing Washer	4FASTENER*	⅝"	Long Life Lap TEK	2,000
	Add \$25 paint setup charge. *Longer lead time may apply. • Ridge and other flashing to outside closure. • Gutter to panel. • Gutter to strap. • Trim to trim connections.			
FASTENER #5 ¼" - 14 X 1¼" Shoulder TEK ⅝" Hex Washer Head	5FASTENER*	⅝"	Shoulder TEK	250
	Add \$25 paint setup charge. *Longer lead time may apply. • Rake support to purlin. • Floating eave plate to eave strut.			
FASTENER #7 ¼" - 20 X 1¼" Shoulder TEK 4 ⅝" Hex Washer Head	7FASTENER*	⅝"	Shoulder TEK	2,000
	*Longer lead time may apply. • Rake support to bar joist. • Floating eave plate to bar joist.			

ACCESSORIES

FASTENER #12

½" Quadrex Driller



PART #	HEAD SIZE	TYPE	#PER BAG
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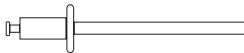
12FASTENER	½"	Driller	5,000
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Add \$25 paint setup charge. *Longer lead time may apply.

- Support plate to purlins at valley and hip conditions.
- Rake angle to purlins.

FASTENER #14

⅛" x 0.337": Pop Rivet
Stainless steel



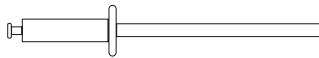
14FASTENER	n/a	Pop Rivet	100
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Add \$25 paint setup charge.

- Gutter strap to snow gutter.

FASTENER #14A

⅛" x 0.525": Pop Rivet
Stainless steel



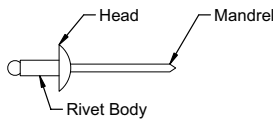
14AFASTENER	n/a	Pop Rivet	100
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Add \$25 paint setup charge.

- Snow gutter to eave plate.
- Outside closure to back-up angle at hip condition.

POP RIVET

FOR FLASHING JOINTS



POP(color)	¾"	Pop Rivet	100
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TAPE SEALER



CL512A



CL502A



CL504A

PART #	TYPE	WIDTH	THICKNESS	LENGTH	#PER CARTON	CARTON WT.
CL512A	Minor Rib	1⅝"	⅞"	4"	144pc.	10.0 lbs
CL502A	Triple Bead	2½"	⅜"	20'	6 rolls	23.0 lbs
CL504A	Tri-Bead	⅞"	⅜"	26'	8 rolls	20.0 lbs

Use to fill any voids at the minor ribs of panel for eave and valley conditions.
Sold by carton only.

SEALANT



PART #	TYPE	COLOR	TUBE SIZE	#PER CARTON	CARTON WT.
GEOC	Tripolymer	Clear	10.3 oz.	24	.85 lbs
GEOG	Tripolymer	Gray	10.3 oz.	24	.85 lbs
GEOW	Tripolymer	White	10.3 oz.	24	.85 lbs
MRS(color)		call for colors	10.3 oz.		
MRSCLEAR		clear	10.3 oz.		

CENTRAL STATES KYNAR 40 YEAR LIMITED PAINT WARRANTY

LIMITED WARRANTY AND LIMITATION OF LIABILITY FOR CENTRAL STATES MANUFACTURING (CSM) STEEL ROOFING AND SIDING PANELS. **THIS WARRANTY COVERS KYNAR MATERIAL ONLY.** PRIME AND THRIFTY MATERIAL ARE COVERED BY SEPARATE WARRANTIES.

CSM is pleased to present you with our 40-year KYNAR limited warranty.

For forty (40) years from the date of installation, the color coated finish WILL NOT crack, check or peel (lose adhesion). This does not include minute fracturing, which may occur in proper fabrication of the building parts. Failure due to substrate corrosion is excluded.

Sidewall		Roof	
Color	Chalk	Color	Chalk
5	9	6	8

SIDEWALL PANELS (for thirty (30) years from installation or thirty and one half (30-1/2) years from coating application)

- WILL NOT chalk in excess of ASTM-D-4214-98 method A D659 number nine (9) rating.
- WILL NOT change color more than five (5.0) Hunter ΔE units as determined by ASTM method D-2244-02. Color change shall be measured on an exposed painted surface that has been cleaned of surface soils and chalk, and the corresponding values measured on the original or unexposed painted surface. It is understood that fading or color changes may not be uniform if the surfaces are not equally exposed to the sun and elements.

ROOFING PANELS (for thirty (30) years from installation or thirty and one half (30-1/2) years from coating application)

- WILL NOT chalk in excess of ASTM D-4214-98 method A D659 number eight (8) rating.
- WILL NOT change color more than six (6.0) Hunter ΔE units as determined by ASTM method D-2244-02. Color change shall be measured on an exposed painted surface that has been cleaned of surface soils and chalk, and the corresponding values measured on the original or unexposed painted surface. It is understood that fading or color changes may not be uniform if the surfaces are not equally exposed to the sun and elements.

In case of a complaint, you will provide access to us and assist us as necessary in determining the exact cause of the failure. ASTM and NCCA testing procedures will be used.

If our KYNAR coatings fail to comply with our limited warranty, we will pay for the labor and material reasonably necessary to repaint, repair or replace, at our option, the building part showing the failure. In order for the warranty to be effective, however, you must notify us in writing of the failure within thirty (30) days of the discovery of such problem and provide any documentation we may require. If we repaint, we will use normal painting practices using the same paint system or other suitable alternatives. This warranty also applies to the part we repaint, repair, or replace, but only for the unexpired portion of the warranty period applicable to the original part.

Our LIMITED WARRANTY DOES NOT APPLY to circumstances which we do not control, including:

- Acts of God, falling objects, explosions, fire or other such similar or dissimilar occurrences beyond CSM's control;
- Unusual harmful fumes, foreign substances in the atmosphere, standing water, or salt spray;
- Improper treatment of or defects in the metal or in the fabrication;
- Stored or installed in a way that allows for poor air circulation;
- Stored or installed in a way that allows for contact with animals or animal waste;
- Mishandled Products, e.g., ANY PRODUCT THAT HAS BEEN ABUSED, ALTERED, MODIFIED, USED IN A MANNER NOT ORIGINALLY INTENDED, OR STORED CONTRARY TO OUR INSTRUCTIONS. Including a) damage to the product occasioned by condensation attributable to improper packaging, handling, shipping, processing and/or installation; b) damage due to failure of the substrate.

This warranty will apply only to metal which is coated with Fluoropon® and used on property located within the continental United States, Alaska, and Canada.

Some colors may not meet our high standards. The warranty applies only to colors that are on our approved color list. Metallics are not color measurable and are not applicable to section 1b.

For our warranty to apply, you must maintain certain records necessary to identify the KYNAR panels involved in a complaint. You need to make them available to us for inspection and copying.

This is our only warranty concerning the KYNAR products color coated finish. We have no other obligations concerning them. Please read and understand the following:

Except for this warranty, we make NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, WITH RESPECT TO OUR KYNAR PRODUCTS COLOR COATED FINISH. IMPLIED WARRANTIES OR FITNESS AND MERCHANTABILITY ARE EXCLUDED. Further, we have no other liability with respect to our KYNAR products color coated finish, whether based on warranty, negligence or any other legal theory. For example, we have no liability for consequential damages.

That is our complete warranty. It sets out all of our obligations regarding our KYNAR product coil coatings. It is only for your benefit and is not assignable. Such things as your purchase order forms or our acceptance forms cannot change it, but it can be changed if CSM agrees in writing.



CORPORATE OFFICE
302 JANE PLACE - LOWELL, AR 72745
800-356-2733

Congratulations.

You are now covered by one of the best limited paint warranties in the business. Please fill this out for your records and keep it for your files.

Central States Order Number*
or Project Number

Contractor/Installer Name Date

Owner's Name

Structure's Address

City State

*Order Number can be found on the Material Package label and the Order Verification paperwork.

E KYNARWARRANTY131126

CENTRAL STATES 20 YEAR AZ50 SUBSTRATE WARRANTY

Central States Manufacturing (CSM) warrants that steel sheets coated with hot-dipped aluminum-zinc alloy AZ50 or Galvalume® AZ50 and sold for use as painted steel roofing and siding panels, if erected in the United States, WILL NOT rupture, fail structurally or perforate within a period of twenty (20) years after shipment due to exposure to normal atmospheric corrosion.

This warranty DOES NOT APPLY to sheets exposed at any time to corrosive or aggressive atmospheric conditions, including but not limited to:

- Areas subject to salt water marine atmospheres or to constant spraying of either salt or fresh water.
- Areas subject to fallout or exposure to corrosive chemicals, fumes, ash, cement dust or animal waste.
- Areas subject to water run-off from lead or copper flashings or areas in metallic contact with lead or copper.
- Conditions/circumstances where corrosive fumes or condensates are generated or released inside the building.

This warranty DOES NOT APPLY in the event of:

- Mechanical, chemical or other damage sustained during shipment, storage, erection, or after erection.
- Failure to provide free drainage of water, including internal condensation from overlaps and all other surfaces of the sheets or panels.
- Failure to remove debris from overlaps and all other surfaces of the sheets or panels.
- Damage caused to the metallic coating by improper scouring or cleaning procedures.
- Deterioration of the panels caused by contact with green or wet lumber, or storage stain caused by water damage or condensation.
- Presence of damp insulation or other corrosive materials in contact with or close proximity to the panel.
- Deterioration to the panels caused directly or indirectly by panel contact with concrete, asphalt, gravel, dirt, mulch, or any corrosive material.
- Deterioration of the panels caused directly or indirectly by panel contact with fasteners. Selection of suitable long-lasting fasteners to be used with Galvalume roofing and siding panels rests solely with the Buyer.
- A degree of bending less than 2T for sheet gauges up to 0.030 in. and degree of bending less than 4T for sheet gauges 0.031 in. and thicker.
- Slopes of roof or sections of the roof flatter than 1/4:12.

This warranty shall be subject to the stipulations, limitations and conditions hereinafter set forth.

The remedy for any claims on steel roofing and siding panels shall be at the discretion of Central States Manufacturing and shall be limited to refinishing or replacing the defective panels.

CENTRAL STATES MANUFACTURING SHALL NOT BE LIABLE FOR ANY LOSSES, DAMAGES OR EXPENSES WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL, CAUSED BY OR RESULTING FROM THE USE OF DEFECTIVE OR NON-CONFORMING STEEL ROOFING AND SIDING PANELS OR FOR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. CENTRAL STATES MANUFACTURING'S TOTAL LIABILITY IS EXPRESSLY LIMITED TO THE PURCHASE PRICE OF THE STEEL ROOFING AND SIDING PANELS PROVIDED BY CENTRAL STATES MANUFACTURING.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply in your state. This warranty provides specific legal rights and other rights which vary from state to state that may apply.

Central States Manufacturing's liability for breach of this warranty shall be limited exclusively to the cost of either repairing non-conforming, rupturing, perforating or structurally failing panels, or at CSM's sole option, of furnishing FOB Buyer's plant sufficient sheet product to enable Buyer to fabricate replacement panels for the non-conforming, rupturing, perforating or structurally failing panels. CSM shall not in any event be liable for the cost of labor expended by others on any non-conforming, rupturing, perforating or structurally failing sheet or for any special, indirect, or consequential loss of profits or any other incidental, general, special or compensatory damages to anyone by reason of the fact that such panels shall have been non-conforming, rupturing, perforating, or structurally failing.

Claims under this warranty must be made in writing to Central States Manufacturing at the address set forth below within 30 days after discovery of the defect. CSM shall have an additional 30 days to inspect the steel roofing and siding panels before any further action shall be taken. Adequate identification of material involved in the claim, including date of installation, order number, invoice number and date of shipment must be established by the Buyer.

Buyer shall exercise diligence in inspection of sheets as received from CSM so as to mitigate repair or replacement. CSM extends this warranty solely to the original owner of any structure where the material is installed. This warranty is not transferable and non-assignable. CSM reserves the right to terminate this warranty at any time (except as to orders already accepted) upon the giving of written notice thereof.

The Law of the State of Arkansas shall govern the rights and duties of the parties under this agreement and jurisdiction and venue is fixed in Benton County, Arkansas.

CENTRAL STATES MANUFACTURING MAKES NO GUARANTEES, EITHER EXPRESSED OR IMPLIED BEYOND THE FACE HEREOF, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF FITNESS AND MERCHANTABILITY, AND SHALL HAVE NO OTHER LIABILITY WITH RESPECT THERETO.



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302 JANE PLACE - LOWELL, AR 72745
800-356-2733

Congratulations.

You are now covered by one of the best warranties in the business.
Please fill this out for your records and keep it for your files.

Central States Order Number*
or Project Number

Contractor/Installer Name _____ Date _____

Owner's Name _____

Structure's Address _____

City _____ State _____

*Order Number can be found on the Material Package label and the Order Verification paperwork.

E AZ50WARRANTY131126

CENTRAL STATES 25 YEAR AZ55 SUBSTRATE WARRANTY

Central States Manufacturing (CSM) warrants that steel sheets coated with hot-dipped aluminum-zinc alloy AZ55 or Galvalume® AZ55 and sold for use as unpainted steel roofing and siding panels, if erected in the United States, WILL NOT rupture, fail structurally or perforate within a period of twenty-five (25) years after shipment due to exposure to normal atmospheric corrosion.

This warranty DOES NOT APPLY to sheets exposed at any time to corrosive or aggressive atmospheric conditions, including but not limited to:

- Areas subject to salt water marine atmospheres or to constant spraying of either salt or fresh water.
- Areas subject to fallout or exposure to corrosive chemicals, fumes, ash, cement dust or animal waste.
- Areas subject to water run-off from lead or copper flashings or areas in metallic contact with lead or copper.
- Conditions/circumstances where corrosive fumes or condensates are generated or released inside the building.

This warranty DOES NOT APPLY in the event of:

- Mechanical, chemical or other damage sustained during shipment, storage, erection, or after erection.
- Failure to provide free drainage of water, including internal condensation from overlaps and all other surfaces of the sheets or panels.
- Failure to remove debris from overlaps and all other surfaces of the sheets or panels.
- Damage caused to the metallic coating by improper scouring or cleaning procedures.
- Deterioration of the panels caused by contact with green or wet lumber, or storage stain caused by water damage or condensation.
- Presence of damp insulation or other corrosive materials in contact with or close proximity to the panel.
- Deterioration to the panels caused directly or indirectly by panel contact with concrete, asphalt, gravel, dirt, mulch, or any corrosive material.
- Deterioration to the panels caused directly or indirectly by panel contact with fasteners. Selection of suitable long-lasting fasteners to be used with Galvalume® roofing and siding panels rests solely with the Buyer.
- A degree of bending less than 2T for sheet gauges up to 0.030 in. and degree of bending less than 4T for sheet gauges 0.031 in. and thicker.
- Slopes of roof or sections of the roof flatter than 1/4:12.

This warranty shall be subject to the stipulations, limitations and conditions hereinafter set forth.

The remedy for any claims on steel roofing and siding panels shall be at the discretion of Central States Manufacturing and shall be limited to refinishing or replacing the defective panels.

CENTRAL STATES MANUFACTURING SHALL NOT BE LIABLE FOR ANY LOSSES, DAMAGES OR EXPENSES WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL, CAUSED BY OR RESULTING FROM THE USE OF DEFECTIVE OR NON-CONFORMING STEEL ROOFING AND SIDING PANELS OR FOR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. CENTRAL STATES MANUFACTURING'S TOTAL LIABILITY IS EXPRESSLY LIMITED TO THE PURCHASE PRICE OF THE STEEL ROOFING AND SIDING PANELS PROVIDED.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply in your state. This warranty provides specific legal rights and other rights which vary from state to state that may apply.

Central States Manufacturing's liability for breach of this warranty shall be limited exclusively to the cost of either repairing non-conforming, rupturing, perforating or structurally failing panels, or at CSM's sole option, of furnishing FOB Buyer's plant sufficient sheet product to enable Buyer to fabricate replacement panels for the non-conforming, rupturing, perforating or structurally failing panels. CSM shall not in any event be liable for the cost of labor expended by others on any non-conforming, rupturing, perforating or structurally failing sheet or for

any special, indirect, or consequential loss of profits or any other incidental, general, special or compensatory damages

to anyone by reason of the fact that such panels shall have been non-conforming, rupturing, perforating, or structurally failing.

Claims under this warranty must be made in writing to Central States Manufacturing at the address set forth below within 30 days after discovery of the defect. CSM shall have an additional 30 days to inspect the steel roofing and siding panels before any further action shall be taken. Adequate identification of material involved in the claim, including date of installation, order number, invoice number and date of shipment must be established by the Buyer.

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