

KlassikKolors® – Specifications

1.1 GENERAL

A. Performance Requirements

Provide a custom sheet metal roofing system capable of withstanding structural movement, thermally induced movement, and a complete watertight enclosure fabricated from sheets to the configuration and details described herein and depicted on the architectural drawings accompanying these specifications. The system includes all custom formed sheet metal roofing pans, felt and rosin paper.

B. Submit the Following

1. Product Data: Include Follansbee's product data, general specifications, standard details, wind uplift test results.
2. Shop drawings: Show plan of panel layout and how, if needed, expansion and contraction of material is provided using stationary cleats or expansion cleats.
3. Show direction of roof expansion and contraction.
4. All penetrations through panels.
5. Details at eave, ridge, hip, valley, rake, cricket, flashings, and penetrations and any special details.
6. Show all cross seams locations and type depending on roof pitch.
7. Sufficient technical data to demonstrate compliance with these specific requirements.
8. Fastener, cleat and attachment layout, with load carrying capacity to meet these specifications and how the cleat and fastener will hold into the substrate.
9. A description of installation procedures which, when approved by the architect, will become the basis for accepting or rejecting the work.

1.2 QUALITY ASSURANCE

A. Installer Qualifications

1. Installer must be proven, experienced applicator who has completed several custom projects using SMACNA 2.25 or Follansbee Specifications and details along with owner, architect and general contractor contacts.
2. Use adequate number of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work.

B. Guarantee

1. Follansbee to provide 30-Year Klassik Kolors Warranty. Contact Follansbee for warranty stipulations.
2. Roofing Contractor to provide standard two year workmanship for a watertight installation. This warranty does not cover damages caused by acts of God, ordinary wear and tear or unusual abuse or neglect or acts and omissions of parties other than the sheet metal roofing manufacturer or Installer.

C. Referencing Specifications and Standards

1. Follansbee Steel Specifications and Data Manual
2. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
3. American Society for Testing and Materials (ASTM)

1.3 PERFORMANCE AND TESTING

A. Provisions for Thermal Movement

1. Metal roofing systems shall be fabricated and installed so that they provide for expansion and contraction of the component materials without failure.

"Oil Canning"

The Architect should be aware that minor surface deflections known as oil canning are inherent in thin sheet metal skins. Factors such as reflectivity will amplify the oil canning appearance until painted. Also wide flat surfaces will show deflections readily. Oil canning does not affect the finish or structural integrity of the pane) and is, therefore, not cause for rejection.

Oil canning induced from buckling stresses however, should not be allowed. These are normally a result of improper application.

B. Uplift Resistance

Metal roofing systems shall be fabricated to resist the negative pressure and uplift loads as shown in the SMACNA Manual-5th edition.

If necessary a separate independent test can be performed to determine the actual pullout of the particular fastener in the particular substrate. Most fastener manufacturers have tested their parts in different substrates. It is recommended that a safety factor be used with all fastener applications.

1.4 PRODUCT

A. ZT® Alloy Coated Steel (Terne II®)

ASTM 625-85 single reduced black plate coated both sides with minimum alloy (50% Zinc/ 50% Tin) to a thickness of 10 Microns.

1. Terne II painted with Fluoropon SR full-strength Fluoropolymer, 70% Kynar or Hylar 5000, .9-1.1 total film thickness.

B. Standing Seam Roof Panels

Standing seam system shall be designed for concealed mechanical attachment of roofing panels to substrate.

C. Cleats

Use Follansbee Preformed TCS II Cleats or fabricate from Klassik Kolors stock sheet product to Follansbee's Specifications.

D. Slip Sheet

Minimum red rosin paper
3.0 - 3.4 lbs. per 100 square feet min.

E. Underlayment

Minimum ASTM D 226, Type II No. 30 asphalt saturated organic roofing felt.

F. Fasteners

Minimum 7/8" Series 300 Stainless steel or galvanized ring-shank nail or equal type fastener.

1.5 FABRICATION

A. Shop Fabricate to the Maximum Extent

1. Custom fabricate all flashings by obtaining field dimensions for accurate fit.
2. Layout so cross seams, when required, will be made in the direction of flow with higher pans overlapping the lower pans. Keep field cutting to a minimum.
3. Cross Seams: Provide staggered transverse seams.

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4. Provide expansion cleats on standing seam pans 30 feet or more in length.
5. Provide expansion joints as required.
6. Penetrations through the roof are to be fabricated and installed to allow for expansion and contraction of the roof sheet without buckling.

1.6 STORAGE AND HANDLING OF KLASSICKOLORS

- A. Materials stored at a project site must be covered and sloped for moisture to drain from the surfaces.
- B. Klassickolors in coil form must not be exposed to weather and should be in a climate controlled environment.
- C. Materials stored on site must be vented to allow condensation to escape
- D. Materials should be protected from heat and direct sunlight
- E. Handling: The Architectural Sheet Metal Contractor shall not be required to move his materials except as needed to install the roof.

1.7 INSTALLATION

1.7.1 Surface Conditions

- A. Pre-roofing conference after substrate is installed; with all related trades, architect, general contractor and owner 's representative. Conference should agree that surface is ready for installation of finished custom metal roofing.
- B. Examine the areas and conditions under which work of this section will be performed. Do not proceed until unsatisfactory conditions are corrected.
- C. Verify that the substrate is sound, dry smooth, clean, sloped for drainage, and completely anchored, and that provisions have been made for roof drains, scuppers, flashings, and I other interface items attaching to or penetrating through the work of this Section.
- D. Klassickolors to be applied to a minimum plywood deck. Some treated lumbers, such as ACQ (Alkaline Copper Quaternary), or Hygroscopic Lumbers must not be used. If sheathing boards are specified. maximum 2" spacing between boards. Some treated or hygroscopic lumbers must not be used.

1.7.2 General

- A. The installed work of this section will not be used as a storage space for other materials.
- B. Do not permit unnecessary walking on the finished roof. Require all personnel to wear rubber-soled shoes when installing or walking on a finished roof.

1.7.3 Installation of Roofing

A. Procedures

1. Air space should be provided under roof deck to facilitate ventilation and eliminate condensation.
2. Klassickolors must be applied to a solid substrate.
3. Prevent moisture from damaging substrate prior to installation of final metal skin.
4. Install roofing sheets and flashings in strict accordance with original design, pertinent, regulations of governmental agencies having jurisdiction, and the recommended installation procedures as approved by the Architect.

5. Anchor all components firmly into position for long life under anticipated weather conditions.
6. Locate and layout all lines and panel terminations. (For batten seam roofs, layout all battens prior to installation of sheets.
7. Install clips to hold sheet into position. Use two fasteners per clip to prevent rotation.
8. Installation performed by qualified trained personnel, experienced in the installation of metal roofing and employed by the metal roofing contractor.
9. Installation to have seams and lines as established by the approved shop erection drawings.
10. Metal roofing to be installed per approved drawings with fixed points determined by direction of expansion.
11. Nail cleats a maximum of 12" (305 mm) on center: turn tabs over nail head or approved fastener. For battens, pre-installed clips, anchor battens to substrate using compatible fasteners spaced as required to hold design uplift. Clips should be centered no more than 12" (305 mm) on center on the battens.
12. Remove protective film once exposed to high heat or direct sunlight.
13. Complete seaming of standing seam panel by automatic seaming machine or other accepted and approved method designed to obtain the proper seam dimension and height.
14. Minimize all exposed fasteners, utilize cleated seams whenever possible.
15. Protect against dissimilar metal contact.
16. Provide uniform, neat seams; provide sealant – type joint where indicated and form joints to conceal sealant.
17. Details should be per SMACNA ARCHITECTURAL SHEET METAL MANUAL recommended details.

1.8 ACCEPTANCE AND CLEANUP

- A. Remove and properly dispose of all foreign material and debris from roof and gutters.
- B. Be sure no dissimilar metal or other materials are left on the roof that may cause staining.
- C. Clean any sealant with approved cleaner.
- D. Remove and replace all dented and damaged materials. Some touch-up of minor finish damage is acceptable.