

## Metal Roofing Guidelines

The Architectural Committee has approved the installation of metal roofing with the following regulations and restrictions:

- A. ORCA Approved Metal Roofing Materials: \*
  - 1. Galvalume (American Society of Testing and Materials (ASTM) No. A 792), coating class AZ50 or AZ55.
  - 2. Prefinished Galvalume.
  - 3. Copper (ASTM B 370), 16 oz(0.0216-inch thick), minimum. Tempered H00(cold rolled).
  - 4. Permanently-colored Stainless Steel.
  
- B. ORCA Approved Prefinishing Coatings over Galvalume as follows:
  - 1. Pretreatment with Chromium-Free Primer.
  - 2. .8 mils High-Performance Primer Coat.
  - 3. Finish coatings: Two(2) coats at .8 mils each of Polyvinylidene Fluoride (PVDF) containing 70% Kynar 500 PVDF or Hylar 5000 PVDF resins.
  
- C. ORCA Approved Prefinished Colors (Available at ORCA Office):
  
- D. Prior to purchase of metal roofing materials, the Owner's Architect , Designer or Contractor is to provide the following for ORCA approval:
  - 1. Roofing material manufacturers sample of product.
  - 2. Product literature including specifications of product, including written information that provides confirmation that product meets or exceeds ORCA standards for approval.
  - 3. Sample of color selected.

\*All metal roofing products shall also meet/exceed requirements set forth in The Florida Building Code (latest edition).

**Performance Characteristics Required for Prefinished Galvalume Roofing Materials: (In accordance with ASTM test procedures)**

**Weatherometer Test (ASTM D822-86, G23-88 )**

Passes 5,000 hours with no objectionable chalking, color change or adhesion loss.

**Accelerated Weathering (ASTM G53 Q.U.V.)**

2,000 hours, color change 0.9 units (DE. No blistering or adhesion loss.

**Dew Cycle Weatherometer (ASTM D3361 )**

1,000 hours, color change 3.6 units (DE. No chalking ).

**SpecularGloss (ASTM D523-89 at 60 degrees)**

Coating shall have a gloss of 30 +- 5.

**Chalking Resistance (ASTM D4214-89)**

Florida Exposure: 10 years at 45 degrees S. Maximum rating of 9.

**Color Change (ASTM D2244 )**

Florida Exposure: 10 years at 45 degrees S. Maximum 4 units change.

**Humidity Resistance (ASTM D2247-87)**

2,000 hours with 90 degree bend at exposed panels. Cleveland Condensing Cabinet at 100 degrees F. No blisters, no rust, no color change, no loss of adhesion on bends.

**Salt Spray ( ASTM B117-85)**

2,000 hours with exposed panels scribed and bent 120 degrees to represent formability. No blisters, no rust on 120 degree formed bend, Trace blisters with no creepage at scribe.

**Pollution Resistance ( ASTM D1308-87 )**

10% HCL, 15 minutes – No effect.

20% H<sub>2</sub>So<sub>4</sub>, 18 hours - No effect.

**Formability T-Bend (ASTM D4145-90 )**

No cracking or tape removal of film at O-T bend.

**Impact Resistance ( ASTM D2794-84 )**

Impact in in./lb = 2,000 x metal thickness– No cracking or adhesion loss.

**Abrasion Resistance Test Falling Sand ( ASTM D968-91 )**

Liters to exposure 5/329 of substrate – 50 liters.