

# **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

## **07 40 00 ROOFING AND SIDING PANELS**

### **PART 1 - GENERAL**

- A. Applicable manufacturer's warranties, at a minimum:
  - 1. Fiberglass Shingles: 25 years.
  - 2. Metal Roofing System: 20 years.
  - 3. Prefinished Metal: 20 year guarantee which states finish will not chalk in excess of an eight rating or fade in excess of a five rating when tested in accordance with the most current and adopted version of ASTM D 4214.
  - 4. Prefinished Metal Roof Weather tightness: 10 years minimum.
  - 5. Elastic Sheet Roofing System: 20 years.
- B. Design the roof system with an minimum average total system "R" of 38.

### **PART 2 - PRODUCTS & DESIGN**

#### **2.01 ROOF SLOPE**

- A. For new "low-sloped" roof systems the final roof slope shall be 3/8 inch per lineal foot minimum and 3/4 inch per lineal foot maximum.
- B. For new "steep" roof systems the final roof slope shall be 4 inches per lineal foot or greater.
- C. For reroofing existing "low-sloped" roof systems the final roof slope shall be a minimum of 1/8 inch per lineal foot. When existing conditions dictate use of tapered insulation, the maximum height shall be limited to 10" and a minimum 8" flashing heights shall not be sacrificed.

#### **2.02 ROOF DRAINS AND DRAINAGE**

- A. Roof drains shall be cast iron with flange, deck clamp, bottom outlet, removable galvanized dome strainer and flashing ring integral with gravel stop. Roof drains shall be set with the top of the flashing ring at least one inch above the deck.
- B. Parapet type (through the wall) roof drains shall not be used.
- C. Mechanical units or penetrations shall not be located in valleys or drain areas or restrict the flow of water. Adequate space shall be provided between mechanical units, penetrations, and walls so that roofing materials can be installed properly.

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#### 2.03 ICE AND SNOW CONTROL

- A. All sloped roof systems shall be designed to prevent sheets of ice or snow being discharged to walkways or other occupied areas below.

#### 2.04 ACCEPTABLE MATERIALS FOR ALL ROOF SYSTEMS

- A. Vapor Retarders: Shall have a perm rating of 0.5 or below in accordance with the most current and adopted version of ASTM E96.

#### 2.05 ACCEPTABLE ARCHITECTURAL SHEET METAL MATERIALS

- A. Kynar 500 prefinished galvanized is standard. Copper and/or aluminum may be used if required by existing construction.
- B. Sealants shall be one part polyurethane conforming to the most current and adopted version of FS TT-S-00230C, Type II, Class A.

#### 2.06 ACCEPTABLE MATERIALS FOR “STEEP” ROOF SYSTEMS

- A. Underlayment: Synthetic felt is preferred (InterWrap “Titanium” or equivalent).
- B. Ice Protection: Polyethylene surfaced, self-adhering modified bituminous membrane.
- C. Shingles
  - 1. Minimum 260 lbs / per square, UL Class A Laminated Fiberglass shingles having small granule weathering surface.
- D. Metal Roofs:
  - 1. Prefinished standing or batten seamed roof panels with machine folded and sealed seams.

#### 2.07 STORAGE

- A. All roofing and associated materials shall be stored on raised platforms a minimum of six inches off the ground and protected with coverings that extend down sides completely while providing for adequate air circulation. Manufacturer installed shrink wrap is not considered to be adequate protection.

### **PART 3 - EXECUTION (NOT USED)**

### **END OF SECTION**