

DIVISION 7 - THERMAL AND MOISTURE PROTECTION.

SECTION 07210 - BUILDING INSULATION

Summary:

1. Provide Building Insulation and Vapor Retarders:
 - a. Under slabs-on-grade, board type, as shown on drawings.
 - b. Foundation walls, board type as shown on drawings.
 - c. Thermal insulation in exterior walls, blanket type.
 - d. Thermal insulation at underside of roofs, over heated spaces and over soffits, blanket type.
 - e. Thermal insulation over unheated areas, blanket type.
 - f. Sheet vapor retarders.

Submittals:

1. Submit product data.

Products:

1. Board Insulation:
 - a. Under slab: Extruded polystyrene, rigid, ASTM C 578.
 - b. Roof: Polyisocyanurate board, rigid, FS HH-I-1972/1, Class 2.
2. Blanket/Batt Insulation:
 - a. Glass fiber or mineral slag fiber, ASTM C 665, Type I (unfaced).
3. Vapor Retarder (Not Integral with Insulation):
 - a. Polyethylene, ASTM D 4397, 6 mils, 0.13 perm vapor transmission rating.
4. Accessories:
 - a. Adhesives and mechanical anchors.
 - b. Protection board.
 - c. Crack sealers and tapes
 - d. Sills: Fiberglass sill sealers at all concrete to wood plate junctures.

Installation:

1. Comply with requirements of Section 01000 - Project Requirements.
2. Install insulation and vapor barriers with continuous coverage to provide optimum performance.

SECTION 07270 - FIRESTOPPING

Summary:

1. Provide Firestopping at the Following Locations:
 - a. Penetrations through fire-resistance-rated floor and roof construction.
 - b. Penetrations through fire-resistance-rated walls and partitions.
 - c. Penetrations through smoke barriers and construction enclosing compartmentalized areas.
 - d. Sealant joints in fire-resistance-rated construction.

Submittals:

1. Submit product data, test reports, mockup of each type of joint.

Products:

1. Fire Performance: ASTM E 119, ASTM E 814, and local regulations.
2. Through-Penetration Firestop Systems:
 - a. Intumescent Latex Sealant.
 - b. Intumescent Putty.
3. Fire-Resistive Elastomeric Joint Sealants:
 - a. Multicomponent, nonsag, urethane sealant.

Installation:

1. Comply with requirements of Section 01000 - Project Requirements.
2. Inspect existing and new work for proper firestopping prior to close-in of ceilings and walls.
3. Provide material thicknesses necessary to provide fire-resistance ratings indicated or required by authorities having jurisdiction.

SECTION 07530 - SINGLE-PLY MEMBRANE ROOFING

Summary:

1. Provide single-ply membrane roofing and roof insulation.
2. Membrane Roofing Warranty: Manufacturer's 10 year warranty.

Submittals:

1. Submit product data, shop drawings, 10 year warranty, maintenance data.

Products:

1. Products: As selected by Architect complying with the following..
2. Membrane Roofing: Totally adhered.
3. EPDM Membrane: EPDM, 45 mils, ASTM D 4637, Type 1.
 - a. Roof system to comply with a Class C assembly as defined in IBC 2003. Roof assembly to also comply with the breaking strength and exposure requirements as defined in Sections 1504.6 and 1504.7 of IBC 2003.
4. Insulation: Polyisocyanurate
5. Sheet Metal Accessories: SMACNA and NRCA recommendations.
6. Walkway Protection Board: Compatible with membrane.

Installation:

1. Comply with requirements of Section 01000 - Project Requirements.
2. Coordinate membrane roofing installation with flashings and metal accessories to shed water properly.

SECTION 07600 - FLASHING AND SHEET METAL

Summary:

1. Provide Flashing and Sheet Metal:
 - a. Metal counterflashing and base flashing.
 - b. Exterior wall flashing and expansion joints.
 - c. Exposed metal trim and fascia units.
 - d. Sheet metal accessories.

- e. Soffit vents.

Submittals:

1. Submit product data, samples, shop drawings.

Products:

1. Sheet Metal Flashing and Trim:
 - a. Drip Edges, Cap Flashings, and Counterflashings: Prefinished Sheet Aluminum: ASTM B 209, alloy 3003, 20 gage (.0359 inch). Match adjacent surface.
2. EPDM Formflash: Flexible Sheet Membrane Flashing: Nonreinforced flexible black elastic sheet, 50 to 65 mils thick, EPDM synthetic rubber sheet.
3. Thru-Wall Flashing: Laminated Composition Sheet Flashing: 3 ounce copper sheet laminated between 2 layers of bituminous impregnated Kraft paper or saturated fabric.
4. Window and Door Openings: Ice and water shield
5. Fabricated Units: Compliance with SMACNA Architectural Sheet Metal Manual.
6. Soffit Vents: Continuous aluminum strip vents.
7. Auxiliary Materials:
 - a. Solder compatible with metal.
 - b. Bituminous isolation coating.
 - c. Mastic and elastomeric sealants.
 - d. Epoxy seam sealer.
 - e. Rosin-sized building paper slip sheet.
 - f. Polyethylene underlayment.
 - g. Reglets and metal accessories.
 - h. Asphaltic roofing cement.

Installation:

1. Comply with requirements of Section 01000 - Project Requirements.
2. Install flashing and sheet metal with provision for expansion and contraction.
3. Install flashing and sheet metal to shed water properly.
4. Isolate dissimilar metals with bituminous coating.

SECTION 07605 – COPPER SHEATHING

Summary:

1. Provide Copper Cladding
 - a. Type: Pillowed.

Submittals:

1. Submit product data, samples, shop drawings.

Products:

1. Material: 6 ounce copper with $\frac{3}{4}$ " lap seam.

Installation:

1. Comply with requirements of Section 01000 - Project Requirements.
2. Install sheet copper with provision for expansion and contraction.
3. Install sheet copper to shed water properly.

4. Isolate dissimilar metals with bituminous coating.

SECTION 07610 - SHEET METAL ROOFING

Summary:

1. Provide Sheet Metal Roofing:
 - a. Standing-seam type. Roofing system to comply with the exposure requirements as defined in Section 1504.6 of IBC 2003.

Submittals:

1. Submit product data, samples, shop drawings.
2. Manufacturer's standard color selection. Color will be determined by architect.

Products:

1. Aluminum Roofing Sheets:
 - a. Type: ASTM B 209, alloy 3003-H14.
 - b. Thickness: 0.040 inches.
 - c. Finish: Fluoropolymer.
2. Auxiliary Materials:
 - a. Asphalt saturated organic felt underlayment.

Installation:

1. Comply with requirements of Section 01000 - Project Requirements.
2. Install sheet metal roofing with provision for expansion and contraction.
3. Install sheet metal roofing to shed water properly.
4. Isolate dissimilar metals with bituminous coating.

SECTION 07900 - JOINT SEALERS

Summary:

1. Provide joint sealers at interior and exterior vertical and horizontal joints.

Submittals:

1. Submit product data, mockup of each joint type, adhesion test results for each joint type.

Products:

1. Urethane Elastomeric Joint Sealants:
 - a. Nonsag Type and Application: Multi-part nonsag urethane sealant, ASTM C 920, for vertical and horizontal joints, exterior and interior use.
 - b. Pourable Type and Application: Multi-part pourable urethane sealant, ASTM C 920, for horizontal joints, exterior and interior use.
2. Silicone Elastomeric Joint Sealants:
 - a. Type and Application: Multi-part nonacid-curing silicone sealant, ASTM C 920, for vertical and horizontal joints, modulus as required for application, exterior and interior use.
 - b. Type and Application: One-part mildew-resistant silicone sealant, ASTM C 920, for sanitary applications, interior use.

3. Latex Joint Sealants:
 - a. Acrylic Type: Acrylic-emulsion, ASTM C 834.
 - b. Application: Interior joints in vertical and overhead surfaces with limited movement.
4. Solvent-Release-Curing Joint Sealants:
 - a. Butyl Type: Butyl, FS TT-S-001657.
 - b. Application: Exterior vertical surfaces with limited movement.
5. Compression Seals:
 - a. Type: Preformed foam sealant.
 - b. Application: Wide exterior joints in vertical surfaces.
6. Fire-Resistive Joint Sealers:
 - a. Type: One part fire-stopping sealant.
 - b. Application: Penetrations in fire-rated floor and wall assemblies.
7. Specialty Sealants:
 - a. Type and Application: Synthetic rubber for acoustical sealant for concealed joints.
 - b. Type and Application: Butyl-polyisobutylene sealant and tape sealant for concealed joints.
8. Paving Joint Fillers:
 - a. Expanding Type: Self-expanding cork.
 - b. Bituminous Type: Bituminous fiber.
 - c. Application: Filler for exterior paving joints.
9. Auxiliary Materials:
 - a. Plastic foam joint fillers.
 - b. Elastomeric tubing backer rods.
 - c. Bond breaker tape.

Installation:

1. Comply with requirements of Section 01000 - Project Requirements.
2. Test sealant adhesion for each substrate required.
3. Install in proper relation with adjacent work.
4. Clean adjacent surfaces soiled with sealant immediately.

END OF DIVISION 7