**SECTION 07 21 16**

**BATT INSULATION**

**PART 1 GENERAL**

1. RELATED DOCUMENTS
   1. The provisions of the general Conditions, Supplementary Conditions, and the Sections included under Division 1, General Requirements, are included as a part of this Section.
2. SECTION INCLUDES
   1. Batt insulation and vapor retarder in exterior wall and ceiling, roof construction.
   2. Batt insulation for filling perimeter window and door shim spaces and crevices in exterior wall and roof
   3. Acoustical batt insulation for interior partitions
3. REFERENCES
   1. ASTM E96/E96M – Standard Test Method for Water Vapor Transmission of Materials
   2. ASTM C665 – Standard Specification for Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing
   3. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials
   4. ASTM E119 – Standard Test Methods for Fire Tests of Building Construction and Materials
   5. ASTM E136 – Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750oC
   6. ASTM C518 – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
   7. ASTM C423 – Standard Test Method for Sound Absorption Coefficient by the Reverberation Room Method
   8. NFPA 255 – Standard Method of Test of Surface Burning Characteristics of Building Materials
   9. UL 723 – Standard for Test for Surface Burning Characteristics of Building Materials
   10. Florida Building Code (FBC)
4. PERFORMANCE REQUIREMENTS
   1. Materials of this Section: Provide continuity of thermal barrier at building enclosure elements.
5. SUBMITTALS
   1. Submit under provisions of Section 01 33 00.
   2. Product Data: Provide data on product characteristics, performance criteria, and limitations.
   3. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
6. COORDINATION
   1. Coordinate work under provisions of Section 01 31 00.
   2. Coordinate the work of Section 07 26 00 for installation of vapor barrier.

**PART 2 PRODUCTS**

1. MATERIALS
   1. Thermal Batt: Provide and install ASTM C665, un-faced glass fiber thermal insulation in accordance with ASTM C518, R-Value for insulation only as indicated on drawings.
      1. FRK (foil), Type III, Class A
      2. PSK (white), Type II, Class A
      3. Surfacing Burning Characteristics for both FRK and PSK faced product:
      4. Maximum Flame Spread: 25
      5. Maximum Smoke Developed: 50
      6. Combustion Characteristics: Non-combustible.
      7. Dimensional Stability: Linear Shrinkage less than 0.1%
   2. Acoustical Batt: Provide and install ASTM C665 un-faced glass fiber acoustical insulation, install in areas as shown on the drawings.
      1. Type I
      2. Surfacing Burning Characteristics, max flame spread of 10 and max smoke developed of 10.
      3. Combustion Characteristics: Passes ASTM E136
      4. Fire Resistance Ratings: Passes ASTM E119 as part of a complete fire tested wall assembly
      5. Dimensional Stability: Linear Shrinkage less than 0.1%
2. ACCESSORIES
   1. Steel wire: electroplated; type and size to suit application.
   2. Tape: Polyethylene self-adhering type, mesh reinforced.
   3. Insulation Fasteners: Steel impale spindle and clip on flat metal base, self-adhering backing, length to suit insulation thickness, capable of securely and rigidly fastening insulation in place.
   4. Wire Mesh: Galvanized steel, hexagonal wire mesh.

**PART 3 EXECUTION**

1. EXAMINATION
   1. Verify site conditions under provisions of Section 01 31 00
   2. Verify that substrate, adjacent materials, and insulation are dry and ready to receive insulation.
2. INSTALLATION
   1. Install insulation in accordance with insulation manufacturer's instructions.
   2. Install in exterior walls, roof, and ceiling spaces without gaps or voids do not compress insulation.
   3. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
   4. Fit insulation tight in spaces and tight to exterior side of mechanical and electrical services within the plane of insulation.
   5. Install with factory applied membrane facing exterior side of building spaces.
      1. Lap the ends and side flanges of membrane over framing members.
   6. Retain in place with wire mesh secured to framing members.
   7. Tape seal butt ends, lapped flanges, and tears or cuts in membrane.
   8. Metal Framing: If vapor barrier is used, place on exterior side of insulation; lap and seal sheet retarder joints over membrane face.

END OF SECTION