

**SECTION 07 21 16
BLANKET INSULATION**

PART 1 - GENERAL

1.1 SCOPE:

- A. Provide all of the labor, materials, equipment, and services to furnish and install the blanket insulation.

1.2 QUALITY ASSURANCE:

- A. The rated R-value shall be clearly identified by an identification mark applied by the manufacturer to each piece of building envelope insulation.

1.3 SUBMITTALS:

- A. Prior to installation, submit to the Architect for review the following:
 - 1. Manufacturer's catalog data fully describing the product and indicating installation recommendations.

1.4 DELIVERY:

- A. Deliver materials in original packages, containers, or bundles bearing manufacturer's labels. Labels shall indicate brand name and descriptive data confirming compliance with requirements herein specified.

1.5 PROTECTION:

- A. Keep materials dry, protected against moisture, weather, and damage.

PART 2 - PRODUCTS

2.1 KRAFT-FACED BATT INSULATION:

- A. Description:
 - 1. Mineral or fiber glass composition conforming to ASTM C665, Type II, Class C.
 - 2. Facing: Asphalt treated, mesh reinforced kraft paper.
- B. Thermal resistance:
 - 1. 3": R=11.
 - 2. 3-1/2" = R-13.
 - 3. 5-1/4" = R-19.
 - 4. 6" = R-22.
 - 5. 9-1/4" = R-30
 - 6. 10-1/4" = R-38

2.2 UN-FACED BATT INSULATION:

- A. Description:
 - 1. Mineral or fiber glass composition conforming to ASTM C665, Type I and ASTM E 136..
 - 2. Non-combustible:
 - a. Flame spread: 15.
 - b. Smoke developed: 0.

- B. Thermal resistance:
 - 1. 3": R=11.
 - 2. 3-1/2" = R-13.
 - 3. 5-1/4" = R-19.
 - 4. 6" = R-22.
 - 5. 9-1/4" = R-30
 - 6. 10-1/4" = R-38

2.3 SOUND ATTENUATION BLANKETS:

- A. See Section 09 29 00.

2.4 ACCESSORIES:

- A. Nails and staples: Steel wire, galvanized, type and size to suit application.
- B. Tape: Polyethylene or polyester, self-adhering type, 2" wide.
- C. 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.

2.5 INSULATION BAFFLES:

- A. Expanded polystyrene insolvent, meeting ASTM C-678 and Fed. Spec. HH-I-524.
 - 1. Product shall be 100% recycled polystyrene.
- B. Size to accommodate rafter spacing in slope ceiling areas.

PART 3 - EXECUTION

3.1 INSTALLATION:

- A. Install insulation in accordance with the manufacturer's printed instructions without gaps or voids.
 - 1. Trim insulation to neatly and tightly fit spaces. Use batts free of damage.
 - 2. Install in the number of layers necessary to achieve the required "R" value.
 - 3. Tape seal butt ends, lapped flanges, and tears or cuts in membrane.
 - 4. The completed installation of surrounding construction shall totally conceal this insulation. Do not leave exposed to view or possible invasion of fire.

3.2 FASTENING:

- A. Physically and permanently attach batts to framing so as to prevent downward slippage of batt.
- B. Between metal studs:
 - 1. Unfaced insulation.
 - a. Use wire or metal straps to hold insulation in place.
 - 2. Faced insulation:
 - a. Apply insulation directly to the interior surface of the exterior wall by welding the pin to metal and then impale the insulation, or by using pre-attached heads and welding them through the insulation.
 - (1) Impale insulation on anchor and secure with washer. Select pin lengths to ensure tight fit. Protect pin tips where subject to human contact. See manufacturer's diagram for impaling pin pattern. Tape flanges to the face of the metal stud prior to applying the interior finish.

3. Provide supplementary support to hold the product in place until finish surface is applied when insulation is installed in heights over 8'.
 4. Support relying on friction alone will not be allowed at any location.
- C. Between wood studs:
1. Unfaced insulation: Use wire or metal straps to hold insulation in place. Support relying on friction alone will not be allowed.
 2. Faced insulation: Staple attachment flanges to face or side of stud every 8-12" to prevent gaps along the edge of the vapor retarding facing. Support relying on friction alone will not be allowed.
- D. Horizontal locations: Support batt with wire supports (spaced as recommended by the manufacturer) or continuously with fabric mesh.

3.3 PROTECTION/CLEAN UP:

- A. When work is completed in each area, remove debris, equipment, and excess material and leave area broom clean.
- B. Protect insulation from damage and from becoming wet before, during and after installation.

- END OF SECTION -