

SECTION 07200 - INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.2 DESCRIPTION OF WORK:

- A. Extent of insulation work is shown on drawings and indicated by provisions of this section.
- B. Applications of insulation specified in this section include the following:
 - 1. Blanket-type building insulation.
- C. Roof insulation is specified in the Division-13 section in which metal building systems, including roofing panels are covered.
- D. Foam plastic board insulation for exterior insulation and finish systems is specified in another Division-7 section.

1.3 QUALITY ASSURANCE:

- A. Thermal Resistivity: Where thermal resistivity properties of insulation materials are designated by r-values they represent the rate of heat flow through a homogenous material exactly 1" thick, measured by test method included in referenced material standard or otherwise indicated. They are expressed by the temperature difference in degrees F between the two exposed faces required to cause one BTU to flow through one square foot per hour at mean temperatures indicated.

1.4 DELIVERY, STORAGE, AND HANDLING:

- A. General Protection: Protect insulations from physical damage and from becoming wet, soiled, or covered with ice or snow. Comply with manufacturer's recommendations for handling, storage and protection during installation.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS:

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:
 - 1. Manufacturers of Extruded Polystyrene Board Insulation:
 - a. Dow Chemical U.S.A.
 - b. Minnesota Diversified Products, Inc.

2. Manufacturers of Glass Fiber Insulation:

- a. CertainTeed Corp.
- b. Manville Corp.
- c. Owens-Corning Fiberglass Corp.

2.2 INSULATING MATERIALS:

- A. General: Provide insulating materials which comply with requirements indicated for materials, compliance with referenced standards, and other characteristics.
- B. Faced Mineral Fiber Blanket/Batt Insulation: Thermal insulation produced by combining mineral fibers of type described below with thermosetting resins to comply with ASTM C 665 for Type III, Class A (blankets with reflective vapor-retarder membrane facing with flame spread of 25 or less); foil-scrim-kraft vapor-retarder membrane on one face, respectively; and as follows:
 - 1. Mineral Fiber Type: Fibers manufactured from glass.
 - 1. Combustion Characteristics: Passes ASTM E 136 test.
 - 2. Surface Burning Characteristics: Maximum flame spread and smoke developed values of 25 and 50, respectively.

2.3 AUXILIARY INSULATING MATERIALS:

- A. Adhesive for Bonding Insulation: Type recommended by insulation manufacturer, and complying with requirements for fire performance characteristics.

PART 3 - EXECUTION

2.1 INSPECTION AND PREPARATION:

- A. Require Installer to examine substrates and conditions under which insulation work is to be performed. A satisfactory substrate is one that complies with requirements of the section in which substrate and related work is specified. Obtain Installer's written report listing conditions detrimental to performance of work in this section. Do not proceed with installation of insulation until unsatisfactory conditions have been corrected.
- B. Clean substrates of substances harmful to insulations or vapor retarders, including removal of projections which might puncture vapor retarders.

2.2 INSTALLATION, GENERAL:

- A. Comply with manufacturer's instructions for particular conditions of installation in each case. If printed instructions are not available or do not apply to project conditions, consult manufacturer's technical representative for specific recommendations before proceeding with work.
- B. Extend insulation full thickness as shown over entire area to be insulated. Cut and fit tightly around obstructions, and fill voids with insulation. Remove projections which interfere with placement.

- C. Apply a single layer of insulation of required thickness, unless otherwise shown or required to make up total thickness.

2.3 INSTALLATION OF GENERAL BUILDING INSULATION:

- C. Apply insulation units to substrate by method indicated, complying with manufacturer's recommendations. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.
- D. Seal joints between closed-cell (non-breathing) insulation units by applying mastic or sealant to edges of each unit to form a tight seal as units are shoved into place. Fill voids in completed installation with mastic or sealant.
- E. Set vapor retarder faced units with vapor retarder to warm side of construction, except as otherwise indicated. Do not obstruct ventilation spaces, except for firestopping.
 - 1. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to surrounding construction to ensure air-tight installation.

2.4 PROTECTION:

- A. General: Protect installed insulation and vapor retarders from harmful weather exposures and from possible physical abuses, where possible by nondelayed installation of concealing work or, where that is not possible, by temporary covering or enclosure.

END OF SECTION 07200