

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

07 20 00 – Insulation

Introduction

This section applies to constructed vertical and horizontal surfaces acting as thermal barriers to the environment inclusive of demising partitioning acting as acoustical barriers. CNM's goal for new projects is substantial reduction in energy usage, both Campus wide and building specific. All effort should focus on mitigating thermal and acoustical factors through proper architectural design, detailing, orientation, and adjacencies. Utilize applied insulating materials as an enhancement to the composite performance of the design rather than as the sole means of obtaining the desired performance.

This section includes insulation used for thermal purposes which is installed as an independent material. Insulation which is integral to a specific system (e.g. membrane roofing or exterior insulation and finish systems), is described in the appropriate Sections.

Consultant should use a "performance specification". Do not specify proprietary manufacturer's names or materials, and do not restrict vendors to a limited list.

Part 1 - General

- A. Design building surfaces to meet the following thermal resistance ("aged R-value") criteria:
 - 1. Specify and design exterior vertical surfaces and exposed horizontal surfaces to attain the minimum R-value defined by the current energy conservation code.
 - 2. Include insulation specified in other sections as part of the total system when calculating total R-value for that system.
- B. All corridors, office walls and ceilings, restrooms, classrooms, laboratories, conference rooms, meeting rooms, and lobbies shall meet ANSI S12.60 Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools.
- C. Specify insulating materials used within the building envelope to meet or exceed Class A fire-smoke requirements.

Part 2 - Products

Typically specify insulation products as follows:

- A. Exterior foundation wall insulation: Molded Polystyrene or Expanded Polystyrene (beadboard) is not acceptable.
- B. Continuous (exterior envelope) insulation at walls.
- C. Thermal batt insulation: Glass-Fiber Blanket.
 - 1. If faced, face with Reinforced-Foil meeting Class A fire-smoke requirements.
 - 2. Unfaced may be used with a vapor retarder.
- D. Sound attenuating insulation (sound batts):
 - 1. Unfaced, Glass-Fiber Blankets.
- E. Other types of insulation may be specified when consistent with their purpose.

End of Section 07 20 00