

Montgomery County Public Schools Facilities Guide
DIVISION 7 - THERMAL AND MOISTURE PROTECTION

SECTION 07210

INSULATION

PART 1 GENERAL

1.01 GUIDE INCLUDES

- A. Batt insulation in metal stud walls and cavities of exterior walls.
- B. Board insulation under slabs at building perimeter.
- C. Board insulation at masonry cavity walls.
- D. Board insulation beneath refrigerated walk-in boxes.
- E. Firestopping at top of fire rated walls.
- F. Sound attenuation insulation in stud partitions between rooms (offices, conference rooms, etc.)
- G. MCPS Acoustical Consultant to verify if additional measures are required for LEED EQp3 Minimal Acoustical Performance.

1.02 SUBMITTALS

- A. Submit manufacturers literature giving data such as fire rating. R value, density, burning characteristics etc.
- B. Submit location of manufacturer and, if available, extraction/ recovery of insulation materials.
- C. Submit recycled-content data, designating percentages of post-consumer and pre-consumer material.
- D. Submit manufacturer's certification that insulation products installed in building interior meet testing and product requirements of California Department of Health Services Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.
- E. Submit MSDS for any applicable products used.

PART 2 PRODUCTS

Products to be verified for LEED-for Schools compliance.

2.01 INSULATION MATERIALS, GENERAL

- A. Subject to compliance with requirements, give preference to products manufactured with a 500-mile radius of the project site.
- B. Insulation materials shall meet the testing and product requirements of California Department of Health Services Standard Practice for The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.
 - 1. At minimum, products need to comply with VOC limits specified in LEED-for Schools if alternatives tested to the CA protocol are not available.
- C. Recycled-content: Provide insulation products made with at least the following recycled content:
 - 1. Fiberglass: Minimum 20% total recycled content, of which at least 10% must be post-consumer recycled-content material.
 - 2. Mineral fiber: Minimum 75% pre-consumer slag wool material.
 - 3. Cellulose: Minimum 80% post-consumer paper.
- D. Manufacturers
 - 1. Board Insulation (HCFC-free polyisocyanurate)
 - a.
 - b. Atlas "Green" Polyiso Insulation
 - 2. Batt Insulation
 - a. Owens-Corning
 - b. Certain-Teed Products Corp.

- c. Johns Manville Corp.
- d. Bonded Logic, Inc. (cotton batt)
- 3. Firestopping
 - a. Thermafiber Safing; Thermafiber
- 4. Spray-Applied:
 - a. Greenfiber (cellulose)
 - b. BioBased Systems (soy-based polyurethane)
 - c. 3-6548 Silicone RTV; Dow Corning
- 5. Phenolic Foam shall not be used.

PART 3 EXECUTION

3.01 INSTALLATION- INSULATION

- A. Install board insulation under entire slab at kindergarten and OT/PT Rooms.
- B. Insulation shall be installed to provide a continuous envelope surrounding conditioned spaces.
- C. Sound attenuation insulation shall be installed securely in place with clips or sandwiched between gypsum board.
- D. Insulation shall be maintained dry, completely free of moisture and free of excessive dust both before and after installation.
- E. Install batt insulation with appropriate fastening devices to prevent insulation from falling out of place.

3.02 WASTE MANAGEMENT

- A. Recycle waste insulation materials in accordance with Section 01524, Construction Waste Management requirements.

ROOF INSULATION NOT SPECIFIED HERE. MOVE TO ROOFING

- B. Flat roofs should have sloped beams in lieu of tapered insulation to allow for proper drainage.

END OF SECTION