

Specification Writing Notes

BioBased Insulation System

The following notes related to 07218 - Semirigid Polyurethane Spray Insulation is intended to aid the specification writer in preparing a coordinated set of construction specifications. The specification writer should take specific project conditions into consideration when implementing any of the notes. Consult your local representative for assistance when editing the section.

1. Limitations on Use of Materials:

BioBased insulation shall not be installed on the exterior of the building below grade, in contact with water, in service environments above 180°F (82°C) above roofing membranes, within two (2) inches (50 mm) of heat emitting devices where the temperature is in excess of 200°F (93°C) or as an interior finish.

2. Wood framed construction

In the *Carpentry* section of *Division 6 Wood and Plastics* specify the following requirements:

- A. All new foundation sill plates and floor/wall junction plates shall be installed with foam gaskets to prevent air leakage or specify the caulking of these joints on the interior of the building in the joint sealant section of the specifications.
- B. All rough size openings for new exterior doors and windows shall be sized to furnish a minimum ½ inch (12.5 mm) space around the perimeter of the door and/or window frame to permit the installation of the foam insulation.

3. Thermal and Moisture Protection

In the appropriate section of *Division 7 Thermal and Moisture Protection*, specify the following requirements:

- A. Caulk all joints between adjacent exterior framing members, between multiple studs and at other critical locations where the installation of insulation is not possible.

Specifier Notes: *Use of a vapor retarder or vapor barrier is normally not considered part of the BioBased Insulation System except in wet locations such as pool rooms. Sections 'b' and 'c' below are included for code compliance in jurisdictions that require use of a vapor barrier. Preferred practice does not include a vapor barrier since over 99% of moisture travel is blocked by BioBased resistance to air movement.*

- B. Vapor retarder shall be installed if required by system design or regional building codes.
- C. Vapor retarder, if used on ceilings, shall be caulked and stapled to the top plates of interior partitions and to the lower top plates of exterior walls.

4. Finishes

In the appropriate section of *Division 9 Finishes*, specify the following requirements:

Specifier Notes: *All class 1 insulation products are required by code to be separated from living area by a 15 minute thermal barrier.*

- A. Insulation shall be separated from the interior of the building by 1/2" (12.7 mm) gypsum board or equivalent approved 15 minute thermal barrier.
- B. Cavity fill application holes made through interior/exterior finishes shall be repaired.

5. Plumbing

In the appropriate plumbing section of *Division 15 Mechanical*, specify the following requirements:

- A. All cleanouts and valves shall be identified in order to avoid the installation of insulation at these locations.
- B. All plumbing stacks which penetrate the exterior walls and/or ceilings shall be cut in so as to provide a minimum 1/2 inch (12.5 mm) space around the stack to permit the installation of insulation.
- C. All PVC or ABS pipe of three (3) inches (75 mm) or less in diameter must be braced every three (3) feet (1 m) to prevent excessive deflection by the expanding foam.

6. Ventilation

In the appropriate section of *Division 15 Mechanical*, specify the following requirements:

- A. All damper controls shall be identified in order to avoid the installation of insulation at these locations.
- B. All combustion appliances shall either be provided with a venting relief safety switch or be uncoupled from the building envelope such that pressure imbalances across the envelope do not interfere with combustion and/or make-up air supply to the combustion chamber.
- C. The building shall be designed with adequate mechanical ventilation to meet the requirements of the local governing codes.
- D. The heating and ventilation system shall be properly designed and balanced to prevent back draft of combustion appliances and to achieve adequate air changes.

7. Electrical

In the appropriate section of *Division 16 Electrical*, specify the following requirements:

- A. All new vertical wiring shall be secured to the inside of studs every three (3) feet (1 m).
- B. In retrofit applications, all existing wiring that is not to be abandoned shall not to be insulated over in accordance with applicable electrical codes.
- C. All ceiling fixtures shall be installed using vapor barrier pans or boxes which are caulked with acoustical caulking material, or, all ceiling fixtures shall be sealed using a suitable sprayed foam material prior to the installation of attic insulation.
- D. All wiring systems such as cable TV, telephone, security systems and intercoms shall be mechanically fastened to the inside of studs every three (3) feet (1 m) for vertical runs, and 1-1/2 inches (40 mm) from the gypsum board surface for all runs.