Core Foam Masonry Foam Insulation®—Specification Guide—AIA

Section 07210: Building Insulation (Foamed-in-Place Insulation)

Part 1—General

Description of Work:

A. Applications for foam insulation specified in this section include:
   1. Foam-in-place insulation in cavities of concrete masonry unit (CMU) walls and wythe area of exterior walls to improve thermal resistance of wall section.
   2. Foam-in-place acoustical insulation in interior and exterior CMU walls and stud-cavity walls.

Quality Assurance:

A. Foam insulation is to be installed by or under the supervision of a Core Foam Masonry Foam Insulation-trained installer.
B. Products are supplied by manufacturer as concentrates and are to be blended by installer to insure product reactivity and consistency.

Part 2—Products

Manufacturer:

cfiFOAM, Inc.
PO Box 10393
Knoxville, TN 37939
800-656-3626

Typical Product Performance Standards:

A. ASTM E-84 Surface Burning Characteristics:
   a. Flame Spread: 25 or Less
   b. Smoke Generated: Less than 450
   c. Thickness: 3.5 inches (maximum thickness allowed by test apparatus)
   d. Tests performed by an independent, certified laboratory located within the United States of America.

B. Thermal Conductivity:
   a. k-value 0.20 BTU/(hr ft^2 ^oF in)

C. Thermal Resistance:
   a. R-value 4.9 per inch @ 25^{o}F @ 1.17 pcf;
   b. R-value 4.6 per inch @ 25^{o}F @ 0.72 pcf

Part 3—Execution

Installation Guidelines:

1. All open cells and voids within each wall shall be filled with foam insulation as specified on the drawings.
2. Prior to installation of Core Foam Masonry Foam Insulation the wall must be essentially dry with no standing water in the CMU cores and no visible wetness on the exterior surface.
3. Core Foam Masonry Foam Insulation shall be mixed by the installer prior to each job to insure product freshness and consistency.
4. Walls can be filled with foam using either top-fill or, more commonly, pressure-injection techniques.
   a. For top-fill, the installer must use an extension tube to begin installing foam from the bottom of the cavity, withdrawing the extension tube as foam fills the cavity.
   b. For pressure-injection, holes are drilled in each CMU—3/8" holes for visually sensitive areas for use with a low-volume touch-up gun, 5/8" holes for use with a standard foam gun, or 7/8" holes for use with a high-volume production gun—at an approximate height of four feet from finished floor level. Normally each vertical core is drilled and injected with foam in 10'-24' lifts.
   c. Core Foam Masonry Foam Insulation is injected until it completely fills each vertical core of block cells, evidenced by foam exiting the adjacent injection hole. Repeat steps b and c at an approximate height of 10'-14' above the initial row of injection holes, or as needed, until the wall is completely filled.
   d. Patch holes with mortar to resemble existing surface.
5. Product should be protected from excess moisture during initial 24 hour curing period after installation. A 72-hour curing period is normally required prior to painting, however in each case the coatings contractor should test the walls to confirm the surface is suitable prior to paint application.
6. Foam should not be exposed to surfaces over 190°F for an extended period of time.

END OF SECTION 07210