

#### CELLULOSE THERMAL/ACOUSTICAL INSULATION

#### PART 1 - GENERAL

#### 1 01 Work Included

- A. Work under this section consists of the furnishing of all labor, materials and equipment necessary for or incidental to the complete and proper installation of all cellulose insulation as shown on the drawings or specified herein, all in accordance with the contract documents.
- B. Material and installation shall conform to applicable building code requirements of all authorities having jurisdiction.

# 1.02 Referenced Regulations and Material Standards

- A. 16 CFR Part 460 Labeling and Advertising of Home Insulation (commonly known as the FTC R-Value Rule)
- B. 16 CFR Part 1209 Interim Safety Standard for Cellulose Insulation (Consumer Products Safety Commission standard for cellulose insulation)
- C. ASTM C739 Standard Specification for Cellulosic Fiber Loose-Fill Insulation
- D. ASTM C1015 Standard Practice for Installation of Cellulosic and Mineral Fiber Loose Fill Insulation
- E. ASTM C1149 Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation
- F. ASTM C1497 Standard Specification for Cellulosic Fiber Stabilized Insulation

## 1.03 Quality Assurance

- A. Manufacturer shall furnish evidence of conformance with Consumer Products Safety Commission Interim Safety Standard 16 CFR Part 1209 and with the applicable ASTM material standard for the specific type of cellulose insulation.
- B. If required by the insulation manufacturer applicator shall furnish evidence of training, experience and approval of the manufacturer.

## 1.04 Delivery, Storage and Handling

- A. Materials shall be delivered to the site in clearly labeled packaging conforming with the labeling requirements of Consumer Products Safety Commission Interim Safety Standard 16 CFR Part 1209 and 1404, Federal Trade Commission R-Value Rule 16 CFR Part 460, and with the applicable ASTM material standard for the specific type of cellulose insulation.
- B. Materials shall be protected from the weather and other damage.
- C. Damaged materials found unsuitable for use will be rejected and shall be removed from the site.

## 1.05 Project, Site Conditions

- A. Cellulose insulation shall not be installed under temperature and humidity conditions not approved by the manufacturer.
- B. In the case of materials installed with added moisture provide natural ventilation to properly cure the insulation during and subsequent to its application.

## 1.06 Cleaning

A. After completion of insulation work in an area, equipment shall be removed and all surfaces shall be cleaned of all deposits of insulation material.

## PART 2 - PRODUCTS

#### 2.01 Materials

- A. Insulation shall be <loose-fill> <self-supporting spray-applied> <stabilized> cellulose insulation.
- B. Insulation shall conform with Consumer Products Safety Commission Interim Safety Standard 16 CFR Part 1209 and with the applicable ASTM material standard for the specific type of cellulose insulation.
- C. Retention membranes, if required, shall conform with the requirements of the insulation manufacturer and building codes.

#### PART 3 - EXECUTION

### 3.01 Preparatory Work

A. Installer shall verify by inspection and with the general contractor that preparatory work specified has been properly done, including, but not limited to assuring that stud and joist spaces are accessible, free of debris and contain all scheduled pipes, conduits and non-heat producing devices and that heat-producing devices and elements that are not inherently fireproof are shielded such that insulation will be held 3" away.

## 3.02 Application

A. Insulation shall be installed in conformance with applicable codes, the manufacturer's published instructions or Cellulose Insulation Manufacturers Association Technical Bulletins 2, 3, or 5; and ASTM Standard Designation C1015.

## 3.03 Field Quality Control

- A. Installation in attic space: specified R-value shall be based on the manufacturer's coverage chart, developed in conformance with the requirements of 16 CFR Part 460. Contractor shall affix thickness markers labeled in inches or R-values to trusses with at least one marker per 300 square feet throughout the attic area. Each marker shall face the attic access. Contractor shall verify installed R-value with a bag count and shall provide a certificate indicating the number of bags installed and the installed R-value. The installer shall post the certificate in a conspicuous location where it is visible and readable from the attic access.
- B. Wall installation: insulation shall be installed at the minimum density required by the insulation manufacturer or the job specifications. Contractor shall verify installed density by calculating the total volume of wall cavities in cubic feet and dividing the total amount of insulation installed, in pounds, by this value.
- C. Continuity: at the architect's or general contractor's discretion, an infrared thermographic inspection may be required. If the test proves the installation is satisfactory, its cost will be borne by the owner. If the test shows discontinuity, its cost and the cost of achieving continuity shall be borne by the contractor.
- D. It is recommended, but not within the scope of this specification, that blower door testing be done to verify that adequate air sealing has been done to assure the thermal performance of the building envelope.

These specifications are accurate as of May 1, 2012. Please check all local building codes for requirements that may vary within local jurisdictions.