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CSI PRODUCT SPECIFICATION

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) Format, including MasterFormat, Section Format, and Page Format, contained in the CSI Manual of Practice.

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings.

Delete all "Specifier Notes" when editing this section.

SECTION 07 21 16

COTTON INSULATION

Specifier Notes: This section covers Cotton Armor™ intended for use on interior and exterior walls, ceilings, attics, partitions and other building assemblies.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Cotton Armor™ Thermal & Acoustical Cotton Blanket Insulation
 - 1. For use in attics, ceilings, wall cavities, partitions, basements, crawl spaces and other building assemblies.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Division 7 Sections that apply to thermal protection.
- B. Division 6 Sections that apply to wood framing.

1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM E 84-10 - Surface Burning Characteristics of Building Materials.
- B. ASTM C 518-10 - Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
- C. ASTM C 739-08, section 9 - Corrosiveness of Cellulosic Fiber Loose-Fill Thermal Insulation.
- D. ASTM C 1338-08 - Fungi Resistance of Cellulosic Fiber Insulation.
- E. ASTM C 739-08, section 12 - Moisture Vapor Sorption for Cellulosic Fiber Loose-Fill Thermal Insulation.
- F. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's printed product data and specifications.
- B. Samples: Submit manufacturer's sample, minimum 6 inches square.
- C. USGBC LEED Submittals: Check with manufacturer and submit manufacturer's documentation for applicable LEED points.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying material name and manufacturer.
- B. Storage: Store materials in a clean, dry area in accordance with manufacturer's instructions.
- C. Handling: Protect materials during handling and installation to prevent damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Applegate Insulation Systems of GA, LLC, 1241 Meadowbrook Drive, Eastanollee, GA 30538
Phone: 855-6-COTTON, 855-626-8866 Fax: 517-521-3597 Website: www.applegatecottonarmor.com

2.2 MATERIALS

- A. *Cotton Armor*[™]: Unfaced blankets made from reclaimed cotton fibers that have been thermally bonded.
- B. R-value: 3.5 Inch = R-13, 5.5 Inch = R-19, 5.5 Inch = R-21, 7.75 Inch = R-30 (ASTM C 518-10)
- C. Fire Rating: Flame Spread – 15 (Class A), Smoke Developed – 40 (Class-A) (ASTM E 84-10)
- D. Fungi Growth: Pass (ASTM C 1338 - 08)
- E. Corrosion Resistance: Pass (ASTM C 739-08)
- F. Acoustical Performance: Sound Transmission Loss of Building Partitions and Elements tested in accordance with ASTM E 90:
 - 1. R-21 Cotton Armor insulated wall: 54 STC
 - 2. R-19 Cotton Armor insulated wall: 53 STC
 - 3. R-13 Cotton Armor insulated wall: 52 STC(Above, STC ratings calculated according to ASTM E-90 testing for sound transmission loss in 24" o.c. steel stud walls and one 5/8th inch layer type X gypsum on each side.)
 - 4. R-19 Cotton Armor insulated wall: 59 STC with two layers of Cotton Armor: 62 STC
 - 5. R-13 Cotton Armor insulated wall: 57 STC with two layers of Cotton Armor: 60 STC(Above, STC ratings calculated according to ASTM E-90 testing for sound transmission loss in double 24" o.c. wood stud walls with one 5/8th inch layer type X gypsum on each side.)
- G. Moisture Absorption: Pass – Less than 15% (ASTM C 739-08)
- H. Environmentally safe, sustainable, non-allergenic, non-hazardous, no-formaldehyde, non-itch insulation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify on site conditions and that work needing to be done prior to installation has been finalized.
- B. Ensure areas are ready for insulation and accurately match accepted project drawings. Notify architect in writing of any deviations from manufacturer's recommended installation tolerances, conditions and or from the architectural plans.
- C. Verify insulation layout and dimensions.

3.2 PREPARATION

- A. Contractor, if required, needs to complete any installation of mechanical, plumbing, electrical, and other utility installations and associated fire blocking before installing *Cotton Armor*[™] blanket insulation. Commencement of installation of *Cotton Armor*[™] constitutes acceptance of conditions.
- B. Remove *Cotton Armor*[™] blanket insulation from packaging and install.

3.3 INSTALLATION

- A. Install insulation in accordance with manufacturer's instructions at locations indicated on the drawings.
- B. Cut or tear insulation to fit snugly around electrical wall outlets and other cutouts and obstructions.
- E. Replace damaged material as directed by Architect.

3.4 PROTECTION

- A. Protect insulation from damage during construction.

END OF SECTION

The preparations of the heart in man, and the answer of the tongue, is from the LORD. All the ways of a man are clean in his own eyes; but the LORD weigheth the spirits. Commit thy works unto the LORD, and thy thoughts shall be established. Proverbs 16:1-3