

DIVISION: 07 00 00 - THERMAL AND MOISTURE PROTECTION

Section: 07 21 00 - Thermal Insulation

Applegate Insulation Systems of GA, LLC
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REPORT SUBJECT:

Applegate Cotton Armor™ Insulation

1.0 SCOPE OF EVALUATION

1.1. This *research* report addresses compliance with the following Codes:

- 2015 International Building Code (IBC)
- 2015 International Residential Code (IRC)
- 2012 International Building Code (IBC)
- 2012 International Residential Code (IRC)

NOTE: This report references 2015 Code sections with [2012] Code sections shown in brackets where they differ.

1.2. *Applegate Cotton Armor™ Insulation* has been evaluated for the following properties:

- Thermal Performance
- Moisture Absorption
- Fungi Resistance
- Corrosiveness
- Surface Burning
- Fire Resistance

1.3. *Applegate Cotton Armor™ Insulation* has been evaluated for the following uses:

- Insulation is intended for use as concealed thermal insulation in walls, floors, and ceilings.

2.0 STATEMENT OF COMPLIANCE

Applegate Cotton Armor™ complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in section 6.0.

3.0 DESCRIPTION

Applegate Cotton Armor™ Insulation is a non-woven insulation containing 85% recycled content, primarily composed of cotton, and a proprietary fire retardant available as unfaced batts, blankets, and rolls.

3.1. *Applegate Cotton Armor Insulation* has the following product R-values / thicknesses:

- R-2 / 0.375"
- R-4 / 1.0"
- R-6 / 1.6"
- R-8 / 2.2"
- R-10 / 2.7"
- R-13 / 3.5"
- R-15 / 3.5"
- R-19 / 5.5"
- R-21 / 5.5"
- R-30 / 7.75"

4.0 PERFORMANCE CHARACTERISTICS

4.1. Applegate Insulation Systems of GA, LLC referenced in this has a flame spread index that does not exceed 25 when tested according to ASTM E84.

5.0 INSTALLATION

5.1. General: *Applegate Cotton Armor™ Insulation* must be installed in accordance with the manufacturer's published installation instructions, the applicable Codes and this Research Report. The manufacturer's published installation instructions and this Research Report must be strictly adhered to, and a copy of the instructions must be available on the jobsite during installation.

6.0 CONDITIONS OF USE

The *Applegate Cotton Armor™ Insulation* products described in this Research Report complies with, or is a suitable alternative to, what is specified in those Codes listed in Sections 1.0 of this report, subject to the following conditions:

6.1. Installation must comply with this Research Report, the manufacturer's published installation instructions and the applicable Code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.



6.2. Applegate Insulation Systems of GA, LLC, located at 1241 Meadowbrook Drive in Eastanollee, Georgia is the sole approved manufacturing location for *Applegate Cotton Armor™ Insulation* products. The products addressed by this report are manufactured in accordance with an approved quality control system with inspections by Intertek NA, Inc. (AA-676).

6.3. Use of *Applegate Cotton Armor™ Insulation* in a fire-resistant-rated assembly is limited to the R-13 / 3.5" product used in the UL Design No. U344 listing assembly with the following rating:

6.3.1. Interior load bearing: 1 hour rating.

6.3.1.1. The design load for the structural members described by UL Design No. U344 is restricted to 80% of the maximum allowable load derived from ASTM D 6513-08 *Standard Practice for calculating the Superimposed Load on Wood-framed Walls for Standard Fire-resistance Tests*.

6.3.2. Exterior non-load bearing: 1 hour rating.

6.4. Any products other than the R-value / thickness configurations identified in this report have not been evaluated for performance and/or compliance to the referenced codes. Identification of such components with the CCRR program mark or number is prohibited.

7.0 SUPPORTING EVIDENCE

7.1. Reports of tests in accordance with: AC81, *Acceptance Criteria for Cotton Fiber Insulation*, revised October 2013.

7.2. Reports of surface burning tests deemed equivalent to ASTM E 84-2012(a) [-09].

7.3. Fire-resistance rating test reports in accordance with: ASTM E 119-2012a [119-08a], *Standard Test Methods for Fire Tests of Building Construction Materials*.

7.4. Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

8.0 IDENTIFICATION

The *Applegate Cotton Armor Insulation* products described in this Research Report are identified by labeling bearing the report holder's name (Applegate Insulation Systems) and the Code Compliance Research Report Mark and number as shown below. The product label shall also include the flame spread index (25), smoke development index (450), and the R-values of each product.



9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1. Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2. Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek-ATI.

10.3. Reference to the Intertek website address: **whdirectory.intertek.com** is recommended to ascertain the current version and status of this report.

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