



# Acoustical Surfaces, Inc.

**SOUNDPROOFING, ACOUSTICS, NOISE & VIBRATION CONTROL SPECIALISTS**

123 Columbia Court North • Suite 201 • Chaska, MN 55318

(952) 448-5300 • Fax (952) 448-2613 • (800) 448-0121

Email: [sales@acousticalsurfaces.com](mailto:sales@acousticalsurfaces.com)

Visit our Website: [www.acousticalsurfaces.com](http://www.acousticalsurfaces.com)

**We Identify and S.T.O.P. Your Noise Problem**

## ES REPORT™

ESR-1134

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This report is subject to re-examination in one year.

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Business/Regional Office • 5360 Workman Mill Road, Whittier, California 90601 • (562) 699-0543  
Regional Office • 900 Montclair Road, Suite A, Birmingham, Alabama 35213 • (205) 599-9800  
Regional Office • 4051 West Fossmoor Road, Country Club Hills, Illinois 60478 • (708) 799-2305

### DIVISION: 07 THERMAL AND MOISTURE PROTECTION Section 07210 – Building Insulation

#### REPORT HOLDER:

Rendered by Manufacturer and Released to:  
Acoustical Surfaces Inc.  
123 Columbia Court North, Suite 201  
Chaska, MN 55318  
1-800-448-0121

#### EVALUATION SUBJECT:

#### ULTRATOUCH NATURAL COTTON FIBER INSULATION

##### 1.0 EVALUATION SCOPE

#### Compliance with the following codes:

- 2003 International Building Code® (IBC)
- 2003 International Building Code® (IRC)

#### Properties evaluated:

- Surface burning characteristics
- Thermal transmission properties
- Materials properties — thermal insulation materials

##### 2.0 USES

UltraTouch Natural Cotton Fiber Insulation is unfaced batt insulation used as concealed thermal insulation in walls, floors, ceilings, attics and crawl spaces.

##### 3.0 DESCRIPTION

#### 3.1 General:

UltraTouch Natural Cotton Fiber Insulation is a nonwoven, unfaced batt insulation consisting of post-industrial recycled denim and cotton fibers. UltraTouch is treated with a borate solution. UltraTouch is manufactured in standard 3.5- and 5.5-inch (88.90 and 139.70 mm) thicknesses at both 16- and 24-inch (406.4 and 609.6 mm) widths. All sizes are manufactured at a density of 1.2 pounds per cubic foot (19.22 kg/m<sup>3</sup>).

#### 3.2 Surface Burning Characteristics:

The insulation, at a thickness of 3 inches (76.2 mm) and a density of 1.2 pounds per cubic foot (19.22 kg/m<sup>3</sup>), has a flame spread index (FSI) of less than 25 and a smoke-developed index (SDI) of less than 450 when tested in accordance with ASTM E 84.

#### 3.3 Thermal Transmission Value:

The insulation, has a thermal transmission (*R*-value) of 3.94 ft<sup>2</sup>•h•°F/Btu (0.694 m<sup>2</sup>•K/W) at a 1 inch (25-inch (25.4 mm) thickness.

##### 4.0 INSTALLATION

#### 4.1 General:

UltraTouch Natural Cotton Fiber Insulation shall be installed in accordance with the manufacturer's published installation instructions and this report. The manufacturer's published installation instructions shall be strictly adhered to, and a copy of the instructions shall be available at all times on the jobsite during installation.

The instructions within this report govern if there are any conflicts between the manufacturer's published installation instructions and this report.

#### 4.2 One-hour Fire-resistant-rated Nonload-bearing Wall Assembly:

The assembly consists of nominal 2-by-4 southern yellow pine wood studs spaced 16 inches (406.4 mm) on center with double 2-by-4 top plates and single 2-by-4 bottom plates with fire blocking installed at mid-height of the frame. Both sides of the wall shall be finished with one layer of 5/8-inch (15.88 mm), Type X gypsum wallboard. The wallboard shall be fastened with 1-5/8-inch (41.28 mm) No 6 drywall screws spaced 8 inches (203.2 mm) on center at perimeter joints and 12 inches (304.8 mm) on center in the field of the wallboard. All joints shall be taped and treated with joint compound and all fastener heads shall be covered with joint compound. Stud cavities shall be filled with 3-1/2-inch-thick (88.90 mm) UltraTouch Natural Cotton Fiber Insulation. The wall shall be a nonload-bearing wall limited to a maximum height of 9 feet (2.7 m).

##### 5.0 CONDITIONS OF USE:

The UltraTouch Natural Cotton Fiber Insulation described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** This evaluation report and the manufacturer's published installation instructions, when required the code official, shall be submitted at the time of permit application.
- 5.2** The insulation shall be manufactured, identified and installed in accordance with this report and the Acoustical Surfaces Inc. instructions.
- 5.3** The insulation shall not be installed over recessed light fixtures or against any heat-producing appliance.
- 5.4** The insulation may be used in fire resistance-rated construction as described in Section 4.2 of this evaluation report.

##### 6.0 EVIDENCE SUBMITTED

- 6.1** Data in accordance with ICC-ES Evaluation Guideline for Cotton Fiber Insulation (EG81), dated March 1, 2004.
- 6.2** Test report in accordance with ASTM E 119.
- 6.3** A quality control manual.

##### 7.0 IDENTIFICATION

Each package of UltraTouch Natural Cotton Fiber Insulation batts covered by this report shall be labeled with the Borical Corporation name and address and the evaluation report number (ESR-1134). The label shall also include the FSI, SDI and *R*-value of the product.

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