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### **Design Density Test Report**

Test Number: RD071918DD Date of Test: May 30, 2007

Specimen Number: 1028070523-3 Date of Manufacture: May 17, 2007

Description of test specimen: Applegate-PA; Stabilized Cellulose Insulation; Blown Using a Krendl Machine and Conditioned for > 72 hours at 69.8 + / - 3.6°F and 50 + / - 5% RH

Test Method: <u>ASTM C 739-05</u>, <u>Section 8 "Specification for Cellulosic Fiber Loose-Fill Thermal Insulation."</u>

Report prepared for: Applegate-Chambersburg, PA / John Powlison

|                      | Test 1  | Test 2  | Test 3  | Test 4  |                                     |
|----------------------|---|---|---|---|-------------------------------------|
| Wt.<br>Area<br>Depth | 91.10<br>0.018385<br>225<br>226<br>228<br>225<br>226.00 | 91.70<br>0.018385<br>225<br>226<br>229<br>227<br>226.75 | 91.60<br>0.018385<br>223<br>224<br>233<br>224<br>226.00 | 91.20<br>0.018385<br>226<br>227<br>230<br>228<br>227.75 | ( grams ) ( m <sup>2</sup> ) ( mm ) |
| Set. Den             | 21.9253   | 21.9967   | 22.0457   | 21.7807   | $(kg/m^3)$                          |
| Set. Den             | 1.369   | 1.373   | 1.376   | 1.360   | ( lb/ft <sup>3</sup> )              |

Settled Density 1.37 (lb/ft<sup>3</sup>)

Reviewed by:

06-29-09

Date:



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### Critical Radiant Flux (Gas) Test Report

Test Number: RD071845CR Date of Test: May 28, 2007

Specimen Number: 1028070523-3 Date of Manufacture: May 17, 2007

Description of test specimen: Applegate-PA; Stabilized Cellulose Insulation; Blown Using a Krendl

Machine and Conditioned for > 72 hours at 69.8 +/- 3.6°F and 50 +/- 5% RH

Test Method: <u>ASTM C 739-05</u>, <u>Section 10</u>, "<u>Specification for Cellulosic Fiber Loose-Fill Thermal Insulation</u>" and <u>ASTM E 970</u>, "<u>Test Method for Critical Radiant Flux of Exposed Attic Floor Using a Radiant Heat Energy Source</u>".

Report prepared for: Applegate-Chambersburg, PA / John Powlison

| Density     | y (lb/ft³) | Length of Burn (cm) | Critical Radiant Fl | $ux (W/cm^2)$ | Pass / F    | Fail |
|-------------|------------|---------------------|---------------------|---------------|-------------|------|
| 1.01        |            | 83.0                | 0.12                |               | <u>Pass</u> |      |
| <u>0.95</u> |            | <u>84.0</u>         | <u>0.12</u>         |               | <u>Pass</u> |      |
| 0.98        |            | <u>77.5</u>         | 0.14                |               | <u>Pass</u> |      |

The average CRF is 0.13 W/cm<sup>2</sup>

The standard deviation is 0.01

The coefficient of variation for repeatability is 7.69 %

Reviewed By:

Date:

The results in this report apply only to the specimen tested.



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# **Smoldering Combustion Test Report**

Test Number: RD071919SC Date of Test: June 06, 2007

Specimen Number: 1028070523-3 Date of Manufacture: May 17, 2007

Description of test specimen: <u>Applegate-PA</u>; <u>Stabilized Cellulose Insulation</u>; <u>Blown Using a Krendl Machine and Conditioned for > 72 hours at 69.8 +/- 3.6°F and 50 +/- 5% RH</u>; <u>Tested at 1.37 PCF</u>

Test Method: <u>ASTM C 739-05</u>, <u>Section 14</u>, "Specification for Cellulosic Fiber Loose-Fill Thermal Insulation."

Report prepared for: Applegate-Chambersburg, PA / John Powlison

| Initial Weight (grams) | Final Weight ( grams ) | % loss      | Pass / Fail |
|------------------------|------------------------|-------------|-------------|
| 89.40                  | 88.90                  | 0.56        | Pass        |
| 89.70                  | 89.40                  | 0.33        | Pass        |
| <u>89.40</u>           | 89.10                  | <u>0.34</u> | Pass        |

Reviewed By:

06-29-07

Date:

The results in this report apply only to the specimen tested.



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### **Corrosiveness Test Report**

Test Number: RD071920CO Date of Test: June 06-20, 2007

Specimen Number: 1028070523-3 Date of Manufacture: May 17, 2007

Description of test specimen: <u>Applegate-PA</u>; <u>Stabilized Cellulose Insulation</u>; <u>Blown Using a Krendl Machine and Conditioned for > 72 hours at 69.8 +/- 3.6°F and 50 +/- 5% RH</u>

Test Method: <u>ASTM C 739-03</u>, <u>Section 9</u>, "<u>Specification for Cellulosic Fiber Loose-Fill</u> Thermal Insulation."

Report prepared for: Applegate-Chambersburg, PA / John Powlison

Coupon: Pass / Fail Comments:

Aluminum <u>Pass</u> <u>No holes or perforations.</u>

Copper Pass No holes or perforations.

Steel <u>Pass</u> <u>No holes or perforations.</u>

Reviewed By:

Date:

The results in this report apply only to the specimen tested.



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## pH Test Report

Test Number: RD071922PH Date of Test: June 04, 2007

Specimen Number: 1028070523-3 Date of Manufacture: May 17, 2007

Description of test specimen: Applegate-PA; Stabilized Cellulose Insulation; Blown Using a Krendl Machine and Conditioned for > 72 hours at 69.8 +/- 3.6°F and 50 +/- 5% RH

Test Method: <u>ASTM D778</u>, "Test Methods for Hydrogen Ion Concentration (pH) of Paper Extracts (Hot-Extraction and Cold-Extraction Procedure)."

Report prepared for: Applegate-Chambersburg, PA / John Powlison

pH = 6.43

Konall & Sraver Reviewed By:

06-29-07

Date: