



Canada

Health Canada

Healthy Environments and Consumer Safety Branch
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airKrete Canada
1420 Bayly Street, Unit 14
Pickering, ON
L1W 3R4

October 9, 2009

Attention: Graham Dewar

RE: airKrete Insulation sample – Foaming Agent + Finished Product

Dear Mr. Dewar,

Thank you for providing samples to our Product Safety Laboratory (PSL) to test for Urea Formaldehyde. I want to update you that the two samples you provided (Fine green powder sample (finished product) and the clear liquid foaming agent sample) do not contain Urea Formaldehyde according to our PSL report. Therefore, this inspection will be closed. Thank you for your cooperation.

If you have any further questions, do not hesitate to contact me.

Sincerely,

Manar Hanania
Consumer Product Safety Officer
Health Canada /Santé Canada
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Insulation Emissions Tests **airKrete**

A Report to: airKrete Canada
1420 Bayley Street, Unit 14
Pickering, Ontario
L1W 3R4

Attention: Mr. Graham Dewar
Operations Manager
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Submitted by: Peter Piersol
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3 pages

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1. INTRODUCTION

At the request of airKrete Canada, ORTECH Environmental (ORTECH) conducted formaldehyde emissions tests on two samples of airKrete insulation using ASTM D5116 “Small Chamber Tests Building Material/Products” method techniques. The samples were heated at 45°C for 30 days and the samples tested for releases of formaldehyde.

2. TESTING METHODOLOGY

2.1 Materials

The two airKrete insulation samples were supplied to ORTECH for emissions tests by airKrete Canada of Pickering, Ontario. The insulation samples were manufactured on August 28, 2009 at the airKrete Weedsport, New York facility and delivered to ORTECH on September 10, 2009. The insulation was injected into glass dishes measuring 15 cm by 20 cm by 5 cm deep. The samples were wrapped in aluminum foil during shipment.

2.2 Sample Test Preparations

The aluminum foil packaging was removed from the airKrete samples and the samples in the glass dishes were placed into an oven at 45°C upon receipt. The samples had the following dimensions:

Sample Dimensions

- 15 cm width
- 20 cm length
- 5 cm depth

The area of the sample exposed for release of emissions was the top surface measuring 15 cm by 20 cm.

After 30 days the samples were removed from the heated oven and placed in materials emission dynamic test chambers.

2.3 Emission Tests

Dynamic Chamber Emissions Test: The samples were tested in materials emission dynamic test chambers under the following conditions:

- Chamber Volume0.0525 m³
- Temperature21°C
- Humidity46 - 48 % RH
- Ventilation1.0 air changes per hour

For the emission tests of the sample were:

- the samples were placed in the emissions chamber after 30 days at 45°C in the oven, and
- after 24-hours in the chambers, the emissions of formaldehyde were tested.

Formaldehyde was sampled by collection in distilled water with colourimetric analysis. The detection limits for the formaldehyde emissions tests were an emission rate of 0.005 mg/m².h and a chamber concentration of 0.003 mg/m³.

3. EMISSIONS TESTING RESULTS

The emissions test results indicate that no formaldehyde was released from either of the two insulation samples after 30 days heating at 45°C.