

CLIENT: **HandyDeck Inc.** now: **Archatrak**
1807 14th Street Level 2 NW 2 Wisconsin Circle, Ste 700
Washington DC 20009 Chevy Chase MD 20815

Test Report No: RJ4750-1

Date: June 3, 2016

SAMPLE ID: The test samples are identified as: Kronos Faggio Porcelain Pavers 24x24 deck tiles.

SAMPLING DETAIL: The test materials were delivered to QAI Laboratories by the manufacturer. The test decks were constructed by QAI personnel. No special sampling conditions or sample preparation were observed by QAI.

DATE OF RECEIPT: Samples were received at QAI on May 26, 2016.

TESTING PERIOD: June 3, 2016

AUTHORIZATION: Proposal # 16MB04152, Signed and Dated April 15, 2016, by Malcom Kay

TEST PROCEDURE: Conduct two **Spread of Flame** test on the submitted samples in accordance with the methods and procedures outlined in ASTM Test Method E108-11, "*Standard Test Methods for Fire Tests of Roof Coverings*"(E108).

TEST RESULTS: The sample has **Met** the **Class A Spread of Flame** requirements when tested in accordance with ASTM Test Method E108-11, "*Standard Method of Fire Tests of Roof Coverings*".

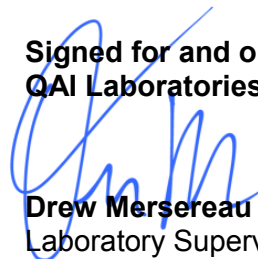
Detailed test results are presented in the subsequent pages of this report.

Prepared By:



Victor Peinado
Test Technician

Signed for and on behalf of
QAI Laboratories, Inc.



Drew Mersereau
Laboratory Supervisor

SPREAD OF FLAME TEST PER ASTM E108-11

Test Sample Construction Details

Testing was conducted in accordance with ASTM E108-11. All test deck assemblies were stored indoors at temperatures not lower than 60°F (16°C) nor higher than 90°F (32°C) for the period of time necessary to cure the assembly components prior to testing. Test decks were stored such that each was surrounded by free circulating air. The test decks were assembled by QAI Staff.

A None Combustible Class A deck was used to support the porcelain pavers and associated plastic leveling system. Each tile was supported by a Eterno SE3 adjustable height Pedestal at each corner, to insure levelness all pedestals were adjusted to the lowest height setting which is approximately 3 inches. The nominal dimensions of the completed deck were 4 feet x 8 feet. The first test deck was built with eight surface porcelain tiles parallel to the lengthwise dimension. The second test deck was built with eight surface porcelain tiles perpendicular to the lengthwise dimension. A picture of the completed deck assemblies are provided in the appendix of this report.

Spread of Flame Test – Class A (TwoTest Deck)

Test Parameters

Wind Velocity: 1056 ft/min ± 44 ft/min
 Flame Temperature: 1400 ± 50° F
 Test Deck Slope: 5" per Horizontal Foot
 Flame Application: 10 Minutes

Test Results

Spread of Flame Details						
Test Deck Assembly	Ignition Time (MM/SS)	Maximum Spread of Flame (ft)	Lateral Spread of Flame (ft)	Flame Front Recession (ft)	Pass/Fail	Orientation
1	00:00	0	None	0	Pass	Perpendicular
2	00:00	0	None	0	Pass	Parallel

Observations

Both surface orientations acted in a similar manner. The sampled test decks showed no sign of ignition at the surface of the porcelain tiles with a maximum spread distance of 0 feet. The flame front did not recede during the ten minute test period. After the test the Eterno SE3 Pedestals were examined for damage. The pedestals showed no signs of melting or burning after the flame exposure to the Kronos Faggio porcelain tiles during the Spread of Flame test.

Conclusion

The sample **Meets** the **Class A Spread of Flame** requirements when tested in accordance with ASTM Test Method E108-11, "*Standard Method of Fire Tests of Roof Coverings*".

CONDITIONS OF ACCEPTANCE FOR CLASSIFICATION BY ASTM E108:

At no time during or after the intermittent flame, spread of flame* or burning brand tests shall:

1. Any portion of the roof covering material be blown or fall off the test deck in the form of flaming or glowing brands that continue to glow after reaching the floor, or
2. The roof deck be exposed, or
3. Portions of the roof deck fall away in the form of particles that continue to glow after reaching the floor.
4. At no time during the Class A intermittent flame or Class A burning brand tests shall there be sustained flaming of the underside of the deck.
- 5.* At the conclusion of the spread of flame tests, the flaming shall not have spread beyond 6 feet for Class A, and there shall have been no significant lateral spread of flame from the path directly exposed to the test flame.

Appendix



Photograph 1: Perpendicular, Porcelain pavers Prior to Testing

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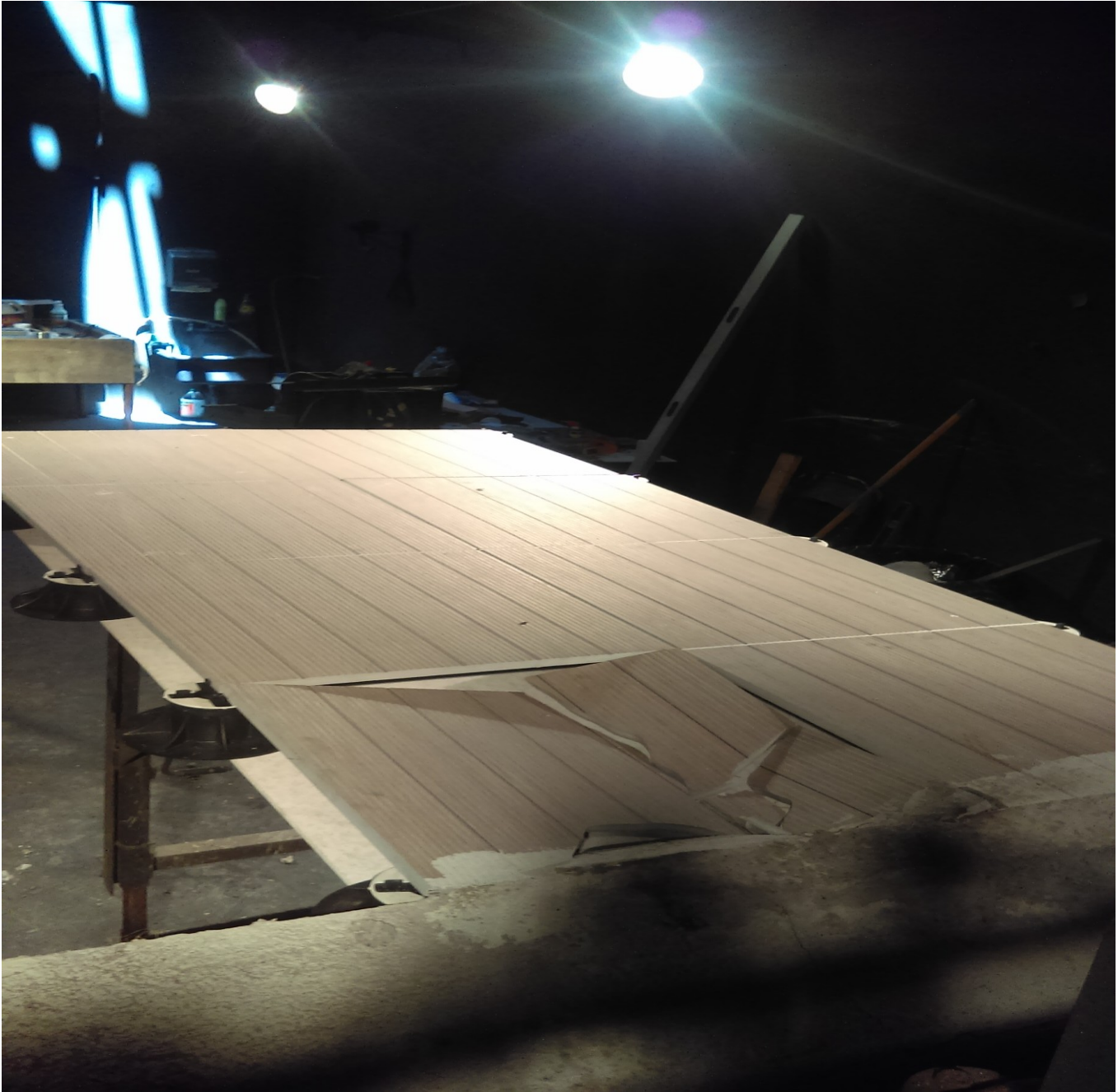
Appendix



Photograph 2 Perpendicular, Porcelain pavers at Maximum Flame Spread

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Photograph 3 Perpendicular, Porcelain pavers Deck After Test Completion

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Photograph 4: Parallel Porcelain pavers Prior to Testing

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Photograph 5 Parallel, Porcelain pavers at Maximum Flame Spread

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Photograph 6: Etherno SE3 adjustable height pedestals

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