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**CLIENT:** Tile Tech Inc  
4730 East 26<sup>th</sup> Street  
Vernon, California 90058

<b>Test Report No: RJ3897-1</b>	<b>Date: April 1, 2015</b>
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**SAMPLE ID:** The test samples are identified as: **Tile Tech Ipe Wood Deck Tiles on Hybrid Pedestal System.**

**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 March 27, 2015

**TESTING PERIOD:** March 31, 2015.

**AUTHORIZATION:** Proposal #DM-2015-031802-R2 Dated March 18, 2015 Signed by Ronnie Tabibnia on March 18, 2015.

**TEST PROCEDURE:** Conduct a single **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 **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".**

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

**Prepared By:**



David Royer  
Test Technician

**Signed for and on behalf of  
QAI Laboratories, Inc.**



Brian Ortega  
Senior Technician

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## **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 <sup>15</sup>/<sub>32</sub>" ACX Plywood sheet was used to support the wood tiles and associated plastic leveling system. The sample consisted of eight Ipe wood planks screwed to 3 cross members yielding a 24" x 24" tile. Each tile was supported by a Tile Tech Hybrid Pedestal at each corner. The nominal dimensions of the completed deck were 4 feet x 8 feet. The wood tiles on one side of the deck were placed with the eight surface planks parallel to the lengthwise dimension. Conversely, the wood tiles on the other side were placed so that the eight surface planks were perpendicular to the lengthwise dimension. A picture of the completed deck assembly is provided in the appendix of this report.

### **Test Details**

#### **Spread of Flame – Class A (One Test Deck)**

Wind Velocity:	1056 ft/min ± 44 ft/min
Flame Temperature:	1400 ± 50° F
Test Deck Slope:	1/4" per Horizontal Foot
Flame Application:	10 Minutes

### **Test Results**

Ignition Time:	1 Minute 16 seconds.
Maximum Spread of Flame:	2 ft.
Time to Maximum Spread:	3 minutes, 7 seconds.
Lateral Spread of Flame:	None
Flame Front Recession:	None.

### **Observations**

After the ignition of the test sample surface the flame front progressed steadily to the maximum spread distance of 2 feet. The flame front did not recede during the ten minute test period. Both surface plank orientations acted in a similar manner. After the test the Hybrid Pedestals were examined for damage. The pedestals showed no signs of melting or burning after the flame exposure to the Ipe Wood tiles during the Spread of Flame test.

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**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.

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Appendix



**Photograph 1: Ipe Wood Tile Deck Prior to Testing**

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Appendix



**Photograph 2: Ipe Wood Tile Deck at Maximum Flame Spread**

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**Photograph 3: Ipe Wood Tile Deck After Test Completion**

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End of Report

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International Accreditation Service

# CERTIFICATE OF ACCREDITATION

*This is to signify that*

**QAI LABORATORIES**  
8385 WHITE OAK AVENUE  
RANCHO CUCAMONGA, CALIFORNIA 91730

Testing Laboratory TL-220  
(Revised June 24, 2014)

has met the requirements of the IAS Accreditation Criteria for Testing Laboratories (AC89), has demonstrated compliance with ISO/IEC Standard 17025:2005, *General requirements for the competence of testing and calibration laboratories*, and has been accredited, commencing April 17, 2014, for the test methods listed in the approved scope of accreditation.

  
Patrick V. McCullen  
Vice President

  
C. P. Ramani, P.E.  
President

*(see attached scope of accreditation for fields of testing and accredited test methods)*



Print Date: 06/24/2014

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation. See the IAS Accreditation Listings on the web at [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS directly at (562) 364-8201.

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