

**CLIENT: BENCORE**

Via Provinciale Nazzano, 20 – 54033  
Carrara - ITALY

**Test Report No: RJ6640F-2**

**Date: December 4, 2018**

**SAMPLE ID:** The test samples are identified as: STARLIGHT Floor 40mm - Composite panel for interiors, positioned horizontally (floors).

**SAMPLING DETAIL:** Test samples were submitted to the laboratory directly by the client. No special sampling conditions or sample preparation were observed by QAI.

**DATE OF RECEIPT:** Samples were received at QAI on November 5, 2018.

**TESTING PERIOD:** November 15 & 16, 2018.

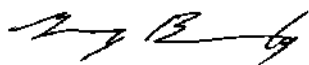
**AUTHORIZATION:** Testing authorized by Tito Franzini for Proposal No. 18FB08271R1 accepted on October 31, 2018.

**TEST REQUESTED:** ASTM Designation D635-18 "Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position".

**TEST RESULTS:** Detailed test results are presented in the subsequent pages of this report

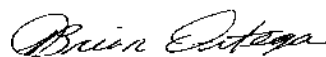
**CLASSIFICATION:** The submitted sample is classified CC1 in accordance with IBC SECTION 2606.4 See classification requirements on page 2.

**Prepared By**



Greg Banasky  
Senior Technician

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



Brian Ortega  
Senior Analyst / Fire Technology

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**CONDITIONING:** The specimen was placed in the conditioning room (maintained at  $73.4 \pm 5^\circ \text{F}$  and a relative humidity of  $50 \pm 5\%$ ) for a minimum of 48 hours prior to testing.

**SAMPLE PREPARATION:** The samples were received in pieces, 13 mm wide by 125 mm long.

**TEST RESULTS:**

Number of Specimens Tested: 10  
Average Specimen Thickness 40 mm

**OBSERVATIONS:** The specimens did not continue to flame after the flame application. The flame did not reach the 25 mm mark on any of the specimens tested.

**CLASSIFICATION REQUIREMENTS PER IBC SECTION 2606.4**

CC1: Plastic materials which have a burning extent of 1 inch (25mm) or less when tested in nominal .060-inch (1.5mm) thickness (or in the thickness intended for use) by this test.

CC2: Plastic materials which have a burning rate of 2.5 inches per minute (64mm/min) or less when tested in nominal 0.060-inch (1.5mm) thickness (or in the thickness intended for use) by this test.



**Specimen before exposure**



**Specimen after exposure**

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**CLIENT: BENCORE**

Via Provinciale Nazzano, 20 – 54033  
Carrara - ITALY

**Test Report No: RJ6640F-4**

**Date: December 4, 2018**

**SAMPLE ID:** The test samples are identified as: STARLIGHT Floor 40mm - Composite panel for interiors, positioned horizontally (floors).

**SAMPLING DETAIL:** Test samples were submitted to the laboratory directly by the client. No special sampling conditions or sample preparation were observed by QAI.

**DATE OF RECEIPT:** Samples were received at QAI on November 5, 2018.

**TESTING PERIOD:** November 15, 2018.

**AUTHORIZATION:** Testing authorized by Tito Franzini for Proposal No. 18FB08271R1 accepted on October 31, 2018.

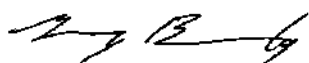
**TEST REQUESTED:** ASTM D1929-16. "Standard Test Method for Determining Ignition Temperatures of Plastic". Spontaneous (Self) Ignition temperature only.

**TEST RESULTS:**  
**Spontaneous (Self)-Ignition Temperature**  
960° F (516°C) See detailed results on page 3.

**REQUIREMENTS:** International Building Code, Section 2606.4 Specifications. Light-transmitting plastics, including thermoplastic, thermosetting or reinforced thermosetting plastic material, shall have a self-ignition temperature of 650°F (34 3°C) or greater where tested in accordance with ASTM D 1929.

**CONCLUSION:** The submitted sample **meets** the requirements.

**Prepared By**



Greg Banasky  
Senior Technician

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



Brian Ortega  
Senior Analyst / Fire Technology

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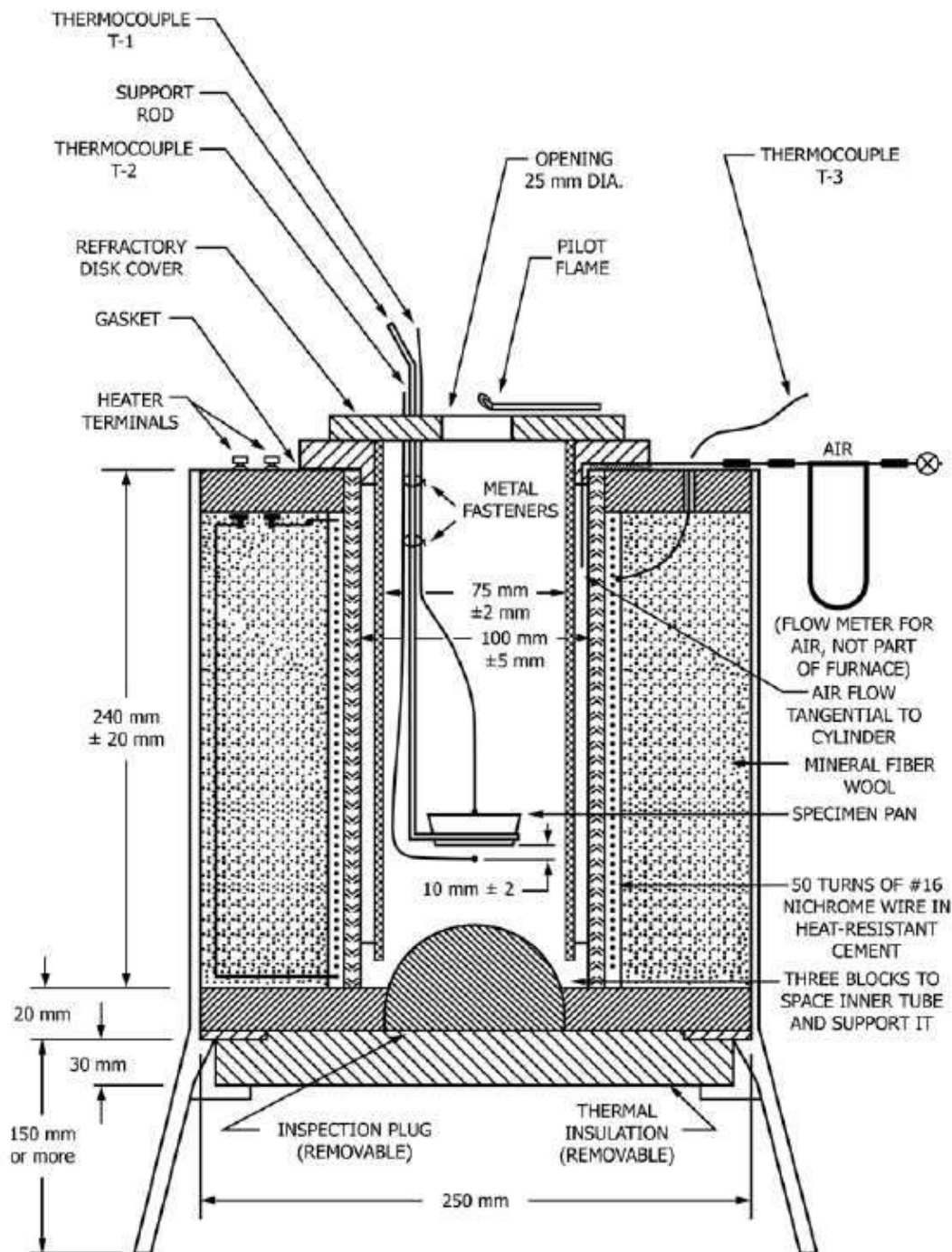
## PROCEDURE:

Test samples were submitted conditioned at  $23\pm 2^{\circ}\text{C}$  /  $50\pm 10\%$  relative humidity for a minimum of 40 hours.

### **Spontaneous (Self) Ignition Temperature (SIT)**

A *Vertical Hot-Air Ignition Furnace*, QAI Asset Number RG613 similar to that shown below in Fig. 1, consisting of an electrical heating unit and a specimen holder, was set with an air velocity of 25 mm/s and a temperature of  $482^{\circ}\text{C}$  which is  $50^{\circ}\text{C}$  below the expected ignition temperature of the product type.

The Specimen Pan was raised to cover the opening of the furnace and the specimen was placed into the pan. The Specimen Pan with the specimen in place was lowered into the furnace with care taken to ensure that the Thermocouples used for temperature measurement remained in their correct position. After the specimen was in place, a calibrated timer QAI Asset Number TU8146 was started while observing for any evidence of flaming combustion, glowing combustion, or a rapid rise in temperature from Thermocouple 1 over Thermocouple 2, QAI Asset Number TC004 and TC001 during the 10 minute test. The lowest air temperature inside the furnace observed by Thermocouple 2 at which a specimen spontaneous' ignition temperature was recorded.



**Figure 1: Vertical Hot-Air Ignition Furnace**

**TEST RESULTS:**

**Spontaneous-Ignition Temperature**

<b><u>Specimen No.</u></b>	<b><u>Weight</u></b>	<b><u>Furnace Temp. °F</u></b>	<b><u>Result</u></b>
1	3.4 g	900	Did not ignite @ 10:00
2	3.2 g	940	Did not ignite @ 10:00
3	3.4 g	<b>960</b>	Ignition, 8:31
4	3.2 g	950	Did not ignite @ 10:00

**OBSERVATIONS:** Flaming combustion was observed. Moderate smoke.

**Note:** *"These test results relate only to the behavior of test specimens under the particular conditions of the test. They are not intended to be used, and shall not be used, to assess the potential fire hazards of a material in use."*

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