

**ASTM E84 Standard** 

**TEST REPORT** 

**Rendered to:** 

Arcitell, LLC

**PRODUCT:** 

**Qora Cladding Panel** 

Report No.: Test Date(s): Report Date: AL060920-36(R1) 10-16-2020 10-19-2020 12 pages

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# **Test Report**

AL060920-36(R1) 10-19-2020

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### **TEST REPORT**

Rendered to:

Arcitell, LLC 750 Edelweiss Dr NE Sugarcreek, OH 44681

| Report No.:  | AL060920-36(R1) |
|--------------|-----------------|
| Test Date:   | 10-16-2020      |
| Report Date: | 10-19-2020      |

### 1.0 General Information

1.1 Product

### **Qora Cladding Panel**

### 1.2 Project Summary

ICC NTA, LLC was contracted by Arcitell, LLC to evaluate Qora Cladding Panel in accordance with ASTM E84-20. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at ICC NTA's facility in Bryan, TX.

### 1.3 Product Description

| Product Name:         | Qora Cladding Panel                      |
|-----------------------|------------------------------------------|
| Product type:         | Wall Cladding                            |
| Product Use:          | Exterior                                 |
| Model Name/Sample     | 1                                        |
| Number:               |                                          |
| Sample Description:   | Qora Cladding Panels (6) 48 x 20 x 1-in. |
|                       | Sample Form: AL060920-29                 |
| Color:                | Bristol                                  |
| Sample Length:        | 24-ft                                    |
| Sample Width:         | 20-in.                                   |
| Thickness:            | 1-in.                                    |
| Total Weight:         | 101.1 lbs                                |
| Sample Received Date: | 9-30-2020                                |
| Days in Conditioning: | 16                                       |



# 1.4 Qualifications

ICC NTA in Bryan, TX has demonstrated compliance with ISO/IEC 17025 and is consequently accredited as a Testing Laboratory. ICC NTA is accredited to perform all testing reported herein.

### 1.5 Product Sampling

A representative of ICC NTA virtually visited Arcitell, LLC facility located in 750 Edelweiss Dr NE Sugarcreek, OH 44681 and with help from Larry DiGirolamo at the manufacturing warehouse virtually selected the materials for the testing reported herein. All test specimens were supplied by Arcitell, LLC. See photograph in Appendix B for photo of sampling mark.

### 1.6 Witnessing

No representatives of Arcitell, LLC were present for testing reported herein.

### 1.7 Conditioning of Test Specimens

Unless otherwise indicated, all testing reported herein was conducted in a laboratory set to maintain temperature in the range of 65-80°F and humidity in the range of 45-60% RH. All test specimen materials were stored in the laboratory conditioning room of 73.4  $\pm$  5°F and at a relative humidity of 50  $\pm$  5% environment for no less than 24 hours prior to testing. The test specimens were conditioned for **16** days and obtained steady state.



#### 2.0 **Referenced Standards**

AC92 - (sec 3.4/3.5) Acceptance Criteria for Polymer-Based, Polymer-Modified and High-Pressure Laminate Exterior and Interior Wall Cladding.

ASTM E84-20 Standard Test Method for Surface Burning Characteristics of Building Materials.

#### 3.0 **Summary of Results**

Flame Spread Index – 0

Smoke Developed Index –15

#### **Test Results** 4.0

| TEST DATA                         | ι.     |
|-----------------------------------|--------|
| Time to Ignition (mm:ss):         | 00:00  |
|                                   |        |
| Maximum Flame Spread (ft):        | 0.000  |
| Time to Max Flame Spread (mm:ss): | 00:00  |
|                                   |        |
| Maximum Temperature (°F):         | 494    |
| Time to Max Temperature (mm:ss):  | 09:53  |
|                                   |        |
| Total Fuel Burned (cubic feet):   | 39.214 |
|                                   |        |
| Flame Spread*Time Area (ft*min):  | 0.000  |
| Smoke Area (%A*min):              | 13.888 |
|                                   |        |
| Unrounded FSI:                    | 0.000  |
| Unrounded SDI:                    | 12.970 |

### TECT OBCEDVATIONS

|       | TEST OBSERVATIONS          |   |            | POST-TEST OBSERVATIONS               |
|-------|----------------------------|---|------------|--------------------------------------|
| 00:00 | Sample ignited.            |   | 0 – 8 ft   | Section was discolored and stayed    |
| 05:13 | Observed Smoke coming from |   |            | in place during test.                |
|       | sample.                    |   | 8 – 16 ft  | Section stayed in place during test. |
|       |                            | - | 16 – 24 ft | Section stayed in place during test. |

# **Calibration Data**

| Date of Last Red Oak Calibration: | 10-06-2020 |  |
|-----------------------------------|------------|--|
| **Calibration Smoke Area          | 107        |  |
| (%A*min)                          |            |  |

\*\* Smoke Calibration Material: Heptane



### Analysis on Classification Criteria

Based on Flame Spread Index and Smoke Developed Index when tested in accordance with ASTM E84 or UL 723. Three classes of interior finish are specified by the International Building Code (IBC) that describes a set of classification criteria required for interior wall and ceiling finish materials. The classification criteria for all three model codes is the same: ASTM E84 and UL 723 do not include classification criteria for the results obtained from testing.

| Class | Flame Spread Index | Smoke Developed Index |
|-------|--------------------|-----------------------|
| Α     | 0-25               | 0-450                 |
| В     | 26-75              | 0-450                 |
| С     | 76-200             | 0-450                 |

### 4.1 General

This fire-test–response standard for the comparative surface burning behavior of building materials is applicable to exposed surfaces such as walls and ceilings. This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire-hazard or fire-risk assessment of the materials, products, or assemblies under actual fire conditions.

### 4.2 Test Specimens

The samples submitted by the manufacturer were (6) 24 x 48-in. panels. They were received without damage. They were individually weighed and logged into the test samples database and placed in the NTA temperature and humidity controlled conditioning room.

### 4.3 Test Setup and Procedure

The product(s) were setup and evaluated in accordance with **ASTM E84-20**.

| Substrate Used:          | None                                                     |  |
|--------------------------|----------------------------------------------------------|--|
| Mounting Method:         | Standard                                                 |  |
| Support Used:            | None                                                     |  |
| Side Exposed:            | Stone Cladding Side                                      |  |
| Adhesive Used & Coverage | N/A                                                      |  |
| Rate (if Applicable):    |                                                          |  |
| Compart Depard Hand to   | Vec                                                      |  |
| Cement Board Used to     | res                                                      |  |
| Cover Sample (Y/N):      |                                                          |  |
| Sample Continuous or     | Panels were adjoined using bridge veneers of the same    |  |
| Sectioned:               | material supplied by client. The gaps behind the veneers |  |
|                          | were sealed using 3M Fire Block Sealant FB 136.          |  |
| No. & Size of            | (6) 48 x 20 x 1-in.                                      |  |
| Sections:                |                                                          |  |
| Lab Ambient Temp (°F):   | 73                                                       |  |
| Lab Ambient RH (%):      | 51                                                       |  |
| Date Tested:             | 10-16-2020                                               |  |



# 5.0 Closing Statement

This report contains only findings and results arrived at after employing the specific test procedures listed herein. It does not constitute a recommendation for, endorsement of, or certification of the product or material tested. ICC NTA, LLC makes no warranty, expressed or implied, except that the test has been performed, and a report prepared, based upon the specimen specified by the client. Extrapolation of data, from the test data provided herein, to the batch or lot from which the specimens were obtained may not correlate and should be interpreted with extreme caution. ICC NTA assumes no responsibility for variations in quality, composition, appearance, performance, or other features of similar materials produced by the client, other persons, or under conditions over which ICC NTA has no control. ICC NTA has issued this report for the exclusive use of the client to whom it is addressed. Any use or duplication of this report shall not be made without their consent. This report shall only be reproduced in its entirety.

For ICC NTA, LLC:

Jabriel Parra

Tested by: Gabriel Parra Test Engineer/Technician 10-19-2020

Reviewed by: Michael Luna Sr. Director

10-19-2020



Appendix A - Data

# **FLAME SPREAD**



<u>SMOKE (%A)</u>







# Appendix B – Photographs



Photo No. 1 Inspector Marking



Photo No. 2 Pre-Test Exposed Side





Photo No. 3 Pre-Test Unexposed Side in Tunnel



Photo No. 4 Post-Test Exposed side in Tunnel





Photo No. 5 Post-Test Unexposed Side in Tunnel



# **Appendix C - Revision Log**

| <u>Rev. #</u> | Date       | Page(s) | Revision(s)                                                                           |
|---------------|------------|---------|---------------------------------------------------------------------------------------|
| 0             | 10-19-2020 | N/A     | Original report issue                                                                 |
| 1             | 10-19-2020 | 1, 3    | Qora Ashlar Medium Joint Stone Cladding reference name change to Qora Cladding Panels |