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FIRE PERFORMANCE EVALUATION IN ACCORDANCE WITH NFPA 268-17, *STANDARD TEST METHOD FOR DETERMINING IGNITIBILITY OF EXTERIOR WALL ASSEMBLIES USING A RADIANT HEAT ENERGY SOURCE*

TRADE NAME: Qora Cladding Panel

REVISED FINAL REPORT
Consisting of 9 Pages

SwRI® Project No.: 01.24921.01.148[1]
Test Date: November 25, 2020
Report Date: January 4, 2021
Revised Report Date: January 14, 2021

Prepared for:

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EXECUTIVE SUMMARY

The wall assembly did not exhibit sustained flaming for a period greater than 5 s, which **meets** the acceptance criteria stated in NFPA 268.

The report was revised to correct the company name from *Articell, LLC* to *Arcitell, LLC* throughout the report and correct the number of pages stated in Appendix A.

1.0 INTRODUCTION

This report describes a fire performance evaluation conducted for ICC NTA, LLC (ICC NTA Project No. AL060920-38) on behalf of Arcitell, LLC in accordance with the National Fire Protection Association (NFPA) 268, 2017 Edition, *Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source.* Testing was conducted at the Fire Technology Department of Southwest Research Institute (SwRI), located in San Antonio, Texas. The report was revised to correct the company name from *Articell, LLC* to *Arcitell, LLC* throughout the report and correct the number of pages stated in Appendix A.

This test method should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all the factors that are pertinent to an assessment of the fire hazard of a particular end use.

This report describes the testing of the assembly tested and the results obtained. The results presented in this report apply specifically to the material tested, in the manner tested, and not to the entire production of these or similar materials, nor to the performance when used in combination with other materials.

2.0 MATERIAL DESCRIPTION

The cladding material was received by SwRI on October 1, 2020, and the construction of the wall frame and base wall, as well as installation of the material was performed by SwRI personnel on a later date. Mr. Kyle Lacefield with ICC NTA, LLC was present to witness the manufacturing of the selected materials on September 17, 2020, and the inspector's initials were verified to be on the samples upon arrival.

Construction details were provided by the Client and described below in Table 1. The wall assembly was conditioned to a constant mass at an ambient temperature of 73°F ± 5°F (23°C ± 3°C) and a relative humidity of 50% ± 5% in accordance with the standard. Constant mass was achieved on October 22, 2020.

Table 1. Sample Description.

Trade Name	Description*
Qora Cladding Panel	The wall assembly consisted of: 1) 2 × 4-in. wood studs spaced 16 in. on center, 2) $^{5}/_{8}$-in. thick OSB sheathing, 3) houswrap, 4) Qora cladding panel was fastened to the sheathing using four self-tapping screws per panel (two on each end).

*Assessed by SwRI personnel.

3.0 TEST SETUP

A calibration test was performed on November 25, 2020, to establish the distance from the radiant panel to the calibration panel in order to maintain an average heat flux of 12.5 kW/m² ± 5% for a 20 min period, as well as to verify that the average surface temperature of the radiant panel was 1600°F ± 50°F. The distance required to maintain the specified heat flux was measured to be 37 in. The heat flux was obtained by averaging the four heat flux meters located at the corners of the central square foot of the calibration panel. The heat flux at the center of the calibration panel shall not exceed 15 kW/m² or be less than 12.5 kW/m². During both the calibration and the test, a side-mounted reference heat flux meter was located 5 in. from the vertical edge of the test specimen to the centerline of the gauge.

4.0 CONCLUSION

The wall assembly did not exhibit sustained flaming for a period greater than 5 s, which **meets** the acceptance criteria stated in NFPA 268. Graphical data and visual observations can be found in Appendix A, and photographic documentation is presented in Appendix B.

APPENDIX A

GRAPHICAL DATA AND VISUAL OBSERVATIONS

(CONSISTING OF 1 PAGE)

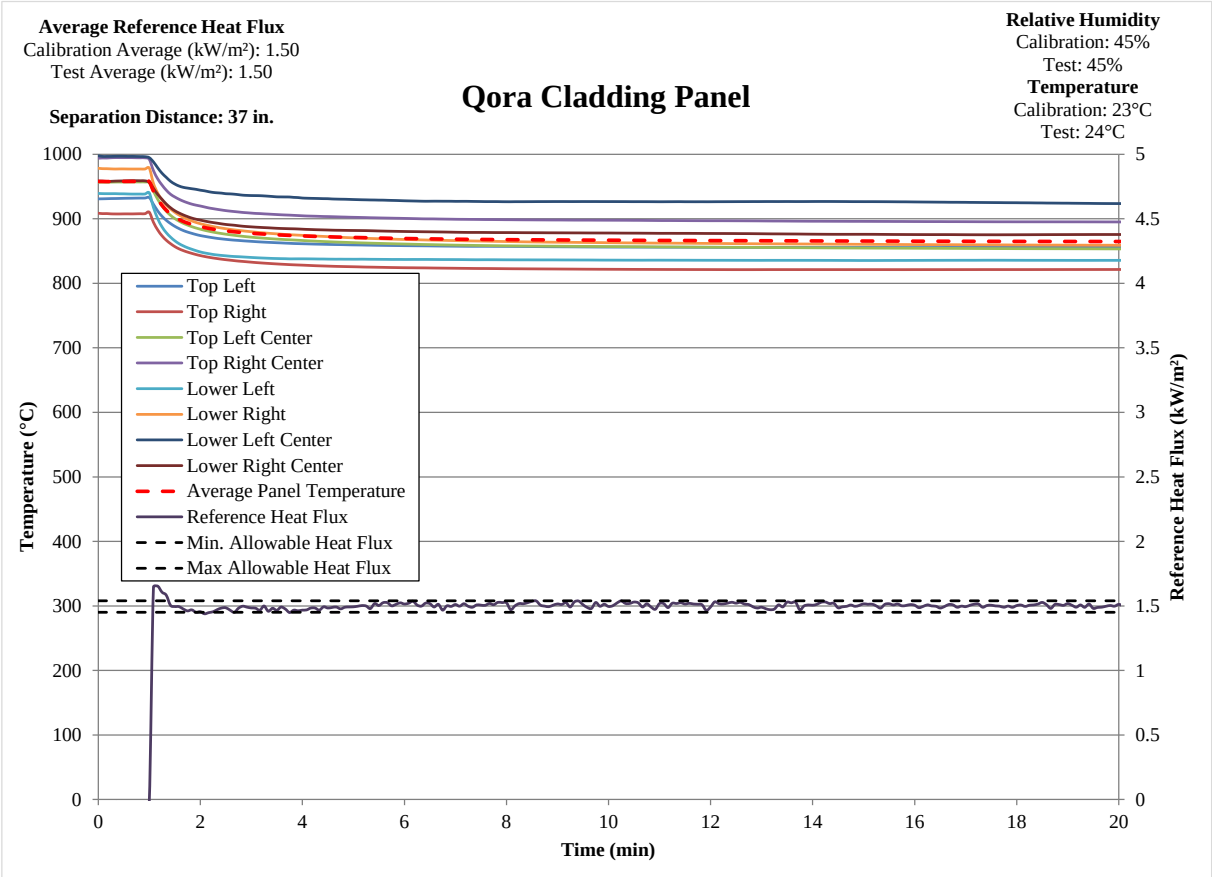

Figure A-1. Reference heat flux and panel temperature.

Table A-1. Test 1 Visual Observations.

Time (min:s)	Observation
-1:00	Baseline
0:00	Start of test. Radiant heat shield removed.
2:10	Sample starting to smoke.
20:00	End of test.

APPENDIX B

PHOTOGRAPHIC DOCUMENTATION

(CONSISTING OF 2 PAGES)

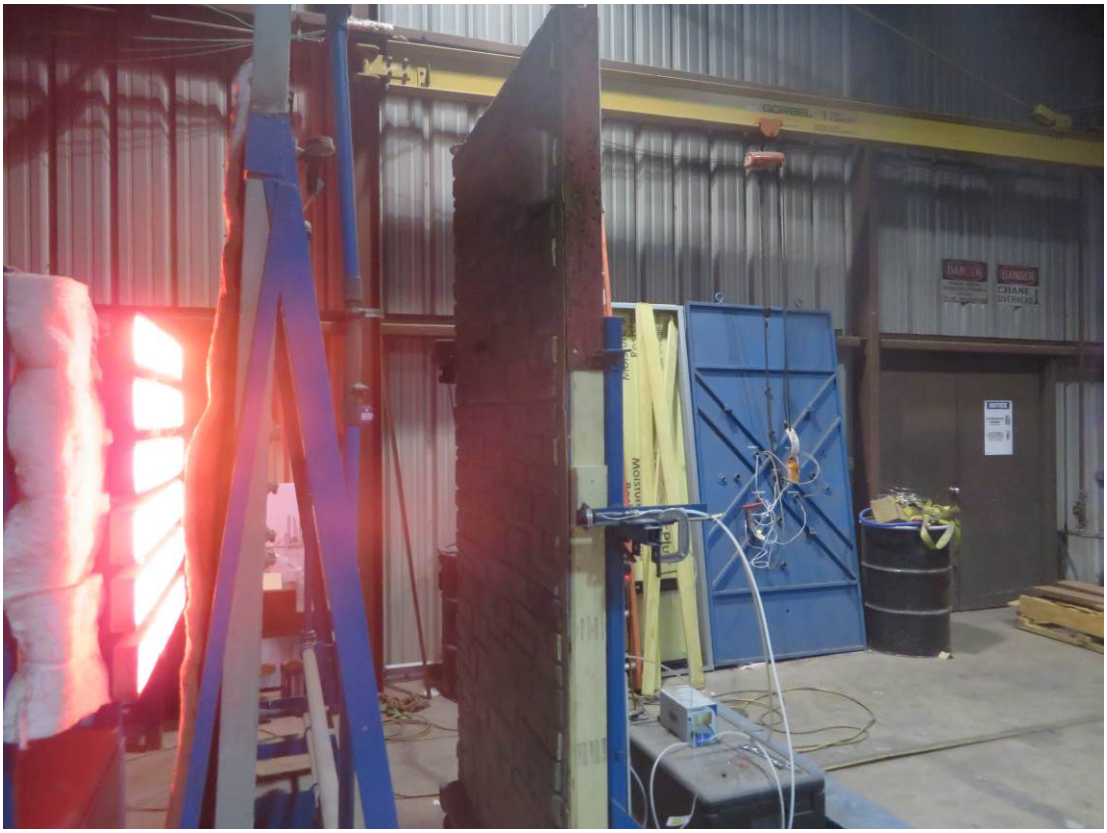

Figure B-1. Test setup.

Figure B-2. Sample starting to smoke during fire exposure.

Figure B-3. Sample after fire exposure.