QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

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CLIENT: **Oldmill Building Products**
14932 S. Concord Park Drive
Bluffdale, UT 84065

Report No: RJ9047P-1	Issue Date: August 17, 2023

SAMPLE ID: Oldmill Thin Bricks measuring approximately 2¼" wide by 7¾" long by ½" thick.

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

TESTING PERIOD: June 27, 2023.

AUTHORIZATION: QAI Test Proposal 23MB05223 signed by Tyler Webster, CEO of Oldmill Building Products on May 30, 2023.

TEST REQUESTED: Shear strength test in accordance with ASTM C482-20, *Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement Paste.*

TEST PROCEDURE: A detailed test procedure is provided on page 2 of this report.

TEST RESULTS: Detailed test results are provided on page 2 of this report.

STATEMENT OF CONFORMITY: The submitted Oldmill Thin Bricks adhered to concrete substrates using Oldmill Modified Adhesive met the shear bond strength requirements of ICC ES AC51 and ASTM C1670 when tested in accordance with ASTM C482.

Prepared By

Larry Burmer
Physical Lab Supervisor

Signed for and on behalf of QAI Laboratories, Inc.

V. Andrew Tan, P.E.
Operations Manager

SHEAR STRENGTH TEST PER ASTM C482-20

Test Procedure

Five Oldmill Thin Bricks were individually bonded to concrete blocks in accordance with ASTM C482 using Oldmill Modified Adhesive cement mortar following the manufacturer's application instructions. The shear bond test assemblies were then allowed to cure for a period of 7 days at 73ºF and 50% relative humidity prior to testing. After curing, the specimens were individually placed in a United Tension/Compression Machine and the Thin Bricks sheared from the concrete blocks at a compression rate of 200 psi per minute.

Test Requirements

1) Per Section 3.5 of ICC ES Acceptance Criteria for Adhered Manufactured Stone Masonry Veneer, AC51, Approved June 2018: The shear bond strength shall be a minimum of 50 pounds per square inch (345 kPa), when tested in accordance with Section 7.2 of ASTM C1670.

2) Per ASTM C1670/C1670M-17, Standard Specification for Adhered Manufactured Stone Masonry Veneer Units: Each unit tested shall develop a shear bond strength with the mortar substrate of not less than 50 psi [350 kPa] when tested in accordance with Test Method C482.

Test Results

Specimen No.	Shear Bond Strength (psi)	Mode of Failure
1	229	Tile cracked
2	278	100% cohesive failure within the adhesive mortar.
3	305	100% cohesive failure within the adhesive mortar.
4	324	100% cohesive failure within the adhesive mortar.
5	225	100% cohesive failure within the adhesive mortar.
Average	**272**	* * * * *

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