QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

8148 NW 74 Avenue
Medley, FL, 33166
305.885.3328 ph. | 305.885.3329 fx

CLIENT: **Litecon Corporation**
18911 Hardy Oak Boulevard No. 190
San Antonio, Texas 78258

Project No: MED-2061a	Report Date: April 24, 2024

SAMPLE ID: Series: Litecon 2-inch Cladding with and R13 Fiberglass Insulation

SAMPLE DESCRIPTION: 8′-0″ (96”) x 8′-0″ (96”) high; See page 3 for full description.

SAMPLING DETAIL: The test sample manufactured by Litecon Corporation were sampled by QAI staff Idalmis Ortega on December 21, 2023.

DATE OF RECEIPT: Samples were received at the QAI Miami Laboratory on January 6, 2024.

TESTING PERIOD: April 11, 2024.

TESTING LOCATION: QAI Laboratory (QAI) – Miami, Florida, USA

AUTHORIZATION: QAI proposal number 24MB02082 dated February 8, 2024, signed by Leonel Borja Quality Manager, staff of Aircrete Corporation, dated March 4, 2024.

TEST PROCEDURE: Testing to the following requirements:

- ASTM E90-09 (reapproved 2016) Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E2235-04Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods
- ASTM E413-22 Classification for Rating Sound Insulation
- ASTM E1332-16 Standard Classification for Rating Outdoor-Indoor Sound Attenuation

TEST RESULTS: The Litecon 2-inch Cladding with R13 Fiberglass Insulation achieved an STC 49 and OITC 42 when tested in accordance with the ASTM E90, ASTM E2235, ASTM E413, and ASTM E1332.

CONTENTS: Test report pages 1 through 4.

Prepared By

Lusinda Delgado

Lusinda Delgado
Technical Report Writer

Signed for and on behalf of QAI Laboratory

Digitally signed by Jose Sancez
Date: 2024.05.07 10:23:34 -04'00'

Jose Sanchez
Operation Manager

Table of Contents

Technician:
Jose Sanchez

DESCRIPTION OF SAMPLE	
Model Designation:	Series: Litecon 2-inch Panel with R13 Fiberglass Insulation
Overall Size:	8′-0″ (96”) x 8′-0″ (96”) high
Size of Panel:	2′-0″ (24”) x 2′-0″ (24”) high x 4′-0″ (48”) long x 0′-2″ thick
Weight of Sample:	5.12lbf/ft2
Sample: A-1	

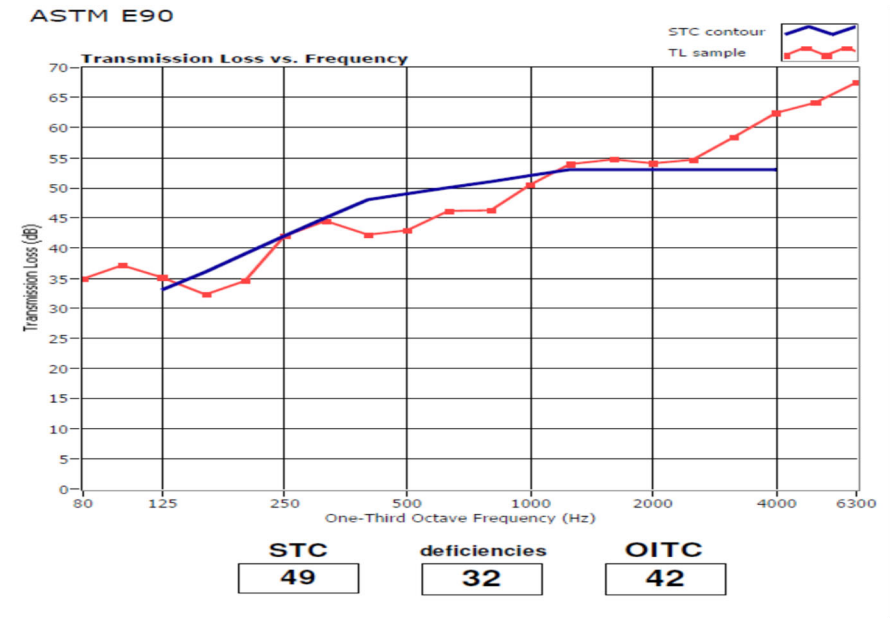
Wall Construction
The Litecon cladding panels were installed vertically and were stacked side by side. The horizontal and vertical seams were sealed with a **Litecon Adhesive Mortar. 2” x 4” wood studs spaced 16” inches in the center were installed on the exterior of the wall. The cladding panels were fastened to the studs using a single row of No. 8 x 3 1/2" FH sharp point type screw 6” on center. The cavity of the wall consisted of 3 1/2" inches of R13 fiberglass insulation between the studs. A 5/8” thick Type X drywall was installed on exterior wall.

Equipment			
Instrument	**Manufacture**	**Model**	**Description**
Pressure microphone	Norsonic	1230	Microphone
Oscillating microphone boom	Norsonic	N265	Rotating microphone
Loudspeaker	JBL	SR4733X	Speaker
Amplifier system	QSC	RMX1850-HD	Amplifier
Dual band equalizer	DBX	DBX-1231	Equalizer

Test Chamber Dimensions	
Receiving Room	7875 ft³
Source Room	6840 ft³

Room Conditions: 24.3°C R.H: 34% ATM: 1017hPa

Data Table	TL (db)	deficiencies	95% CI
80	35	-	1.87
100	37	-	2.24
125	35	0	0.98
160	32	4	1.62
200	35	4	0.89
250	42	0	0.81
315	44	1	0.86
400	42	6	0.39
500	43	6	0.56
630	46	4	0.41
800	46	5	0.45
1000	50	2	0.31
1250	54	0	0.24
1600	55	0	0.30
2000	54	0	0.26
2500	55	0	0.32
3150	58	0	0.19
4000	62	0	0.31



Notes

* Designates measurements by laboratory
** as per manufacturer
QAI does not have, nor does it intend to acquire or will acquire, a financial interest in any company manufacturing or distributing products tested or labeled by QAI. QAI is not owned, operated, or controlled by any company manufacturing or distributing products it tests or labels.

Drawings referenced in this document are an integral part of this report, therefore, are required when distributing this test report. Test results obtained represent the actual value of the tested specimens and do not constitute opinion, endorsement or certification by this laboratory.

Test Procedure

Samples were installed in a 96" by 96" wall opening and were approximately 1/4" from flush with the receive room side of the wall. A filler panel was installed in the wall opening and a sound transmission loss test was initially performed on the wall. Duct seal was used to seal the interior and exterior of the test samples to the wall opening.

The sensitivity of the microphones was checked with a calibrator before testing was performed.

The sound transmission loss values were obtained for a single direction.

Five measurements were conducted for the sound pressure level, background noise and sound absorption. Measurements were collected at each rotating microphone.

Data for flanking limit tests, repeatability measurements and reference specimen tests are available on request.

REVISION HISTORY:
4/24/2024: Initial report release

*********END REPORT*********