QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

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CLIENT: **Litecon Corporation**
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Project No: MED-1241a	Report Date: April 3, 2024

SAMPLE ID: Series: Litecon Firewall 2” Panel with Wood Studs 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 QA staff Idalmis Ortega on December 21, 2023.

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

TESTING PERIOD: March 5, 2024.

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

AUTHORIZATION: QAI proposal number 23MB10192R2 dated October 19, 2023, signed by Leonel Borja Quality Manager,staff of Aircrete Mexico dated November 21, 2023.

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 Firewall panel with wood studs and R13 fiberglass insulation achieved an STC 56 and OITC 48 when tested in accordance with the ASTM E90, ASTM E2235, ASTM E413, and ASTM E1332.

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Signed for and on behalf of QAI Laboratory
Jose Sanchez
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Technician:
Jose Sanchez

DESCRIPTION OF SAMPLE	
Model Designation:	Series: Litecon Firewall 2” Panel with Wood Studs and R13 Fiberglass Insulation
Overall Size:	8′-0″ (96”) x 8′-0″ (96”) high
Size of Panel:	6′-8″ (80”) x 2′-0″ (24”) high x 0′-2″ (2”) thick
Weight of Sample:	5.12lbf/ft2
Sample: A-1	

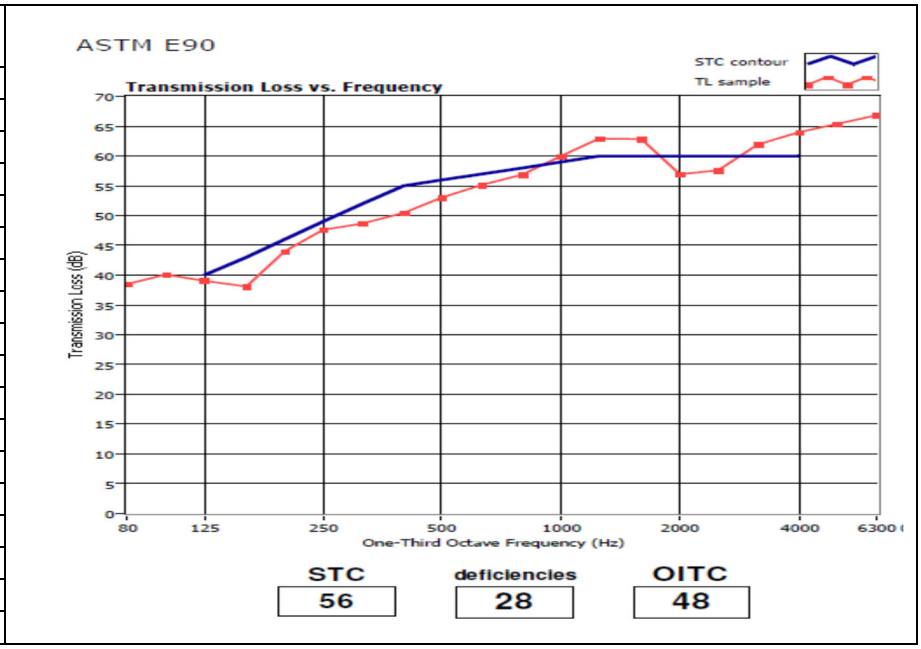
Wall Construction
The Litecon fire panels were installed vertically and were stacked and staggered. The horizontal and vertical seams were sealed with an **Litecon Adhesive Mortar. 2” x 4” wood studs spaced 16” inches in the center were installed on both sides of the wall using 2” x 2” x 2 1/2” burn clips. Each burn clip was fastened to the Litecon fire panel using two No. 8 x 1 1/2” sharp point type screws and to the stud using one No. 8 x 1 1/2” sharp point type screw. 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 both sides of the wall.

Equipment			
Instrument	**Manufacture**	**Model**	**Description**
Pressure microphone	Norsonic	1230	Microphone
Oscillating microphone boom	Norsonic	N265	Rotating microphone
Loud speaker	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: 38% ATM: 1020hPa

Data Table	TL (db)	deficiencies	95% CI
80	39	-	1.81
100	40	-	1.49
125	39	1	1.19
160	38	5	1.06
200	44	2	0.72
250	48	1	0.60
315	49	3	0.32
400	50	5	0.31
500	53	3	0.37
630	55	2	0.22
800	57	1	0.20
1000	60	0	0.16
1250	63	0	0.14
1600	63	0	0.18
2000	57	3	0.22
2500	58	2	0.19
3150	62	0	0.14
4000	64	0	0.20



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:

4/3/2024: Initial report release

4/10/2024: Corrected name of adhesive mortar used under wall construction.

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