

**CLIENT:** Litecon Corporation  
Calle 3, Numero 7 Parque  
Industrial Platah, Villa de  
Tezontepec Hidalgo CP43880

**Project No: MED-1241d**

**Report Date: April 3, 2024**

**SAMPLE ID:** Series: Litecon Firewall 2" Panel with Metal 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 7, 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 E2235-04 Standard 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 metal studs and R13 fiberglass insulation achieved an STC 58 and OITC 50 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**  
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Operation Manager

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Jose Sanchez

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**DESCRIPTION OF SAMPLE**

Model Designation:	Series: Litecon Firewall 2" Panel with Metal 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/ft <sup>2</sup>
Sample:	D-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. 20-gauge metal 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 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
Loudspeaker	JBL	SR4733X	Speaker
Amplifier system	QSC	RMX1850-HD	Amplifier
Dual band equalizer	DBX	DBX-1231	Equalizer

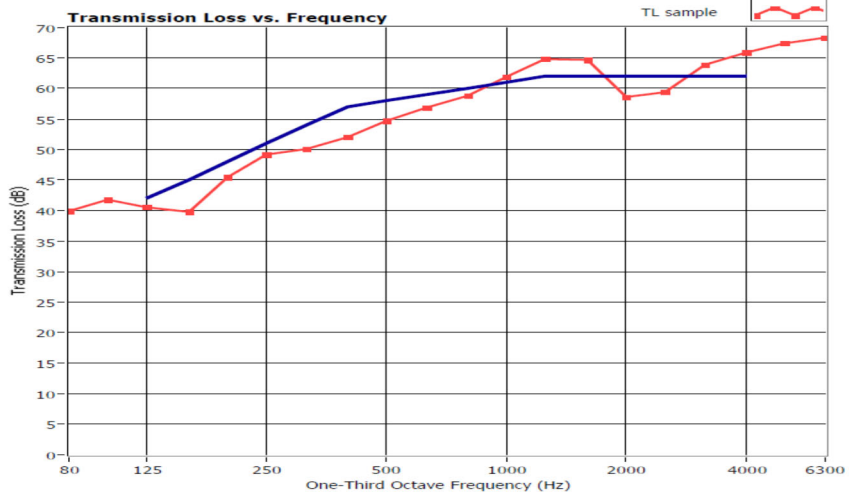
**Test Chamber Dimensions**

Receiving Room	7875 ft <sup>3</sup>
Source Room	6840 ft <sup>3</sup>

Room Conditions: 25.0°C    R.H: 38%    ATM: 1020hPa

Data Table	TL (db)	deficiencies	95% CI
80	40	-	1.81
100	42	-	1.49
125	41	1	1.19
160	40	5	1.06
200	45	3	0.72
250	49	2	0.60
315	50	4	0.32
400	52	5	0.31
500	55	3	0.37
630	57	2	0.22
800	59	1	0.20
1000	62	0	0.16
1250	65	0	0.14
1600	65	0	0.18
2000	59	3	0.22
2500	59	3	0.19
3150	64	0	0.14
4000	66	0	0.20

ASTM E90



**STC** 58      **deficiencies** 32      **OITC** 50

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### Notes

\* designates measurements by laboratory

\*\* as per manufacturer

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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\*\*\*\*\*

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