

ETEM S.A.

ACOUSTICAL PERFORMANCE TEST REPORT

SCOPE OF WORK

ASTM E90 SOUND TRANSMISSION LOSS TESTING ON AN E86, FIXED WINDOW

REPORT NUMBER

J4219.01-113-11-R0

TEST DATE

04/17/19

ISSUE DATE

05/01/19

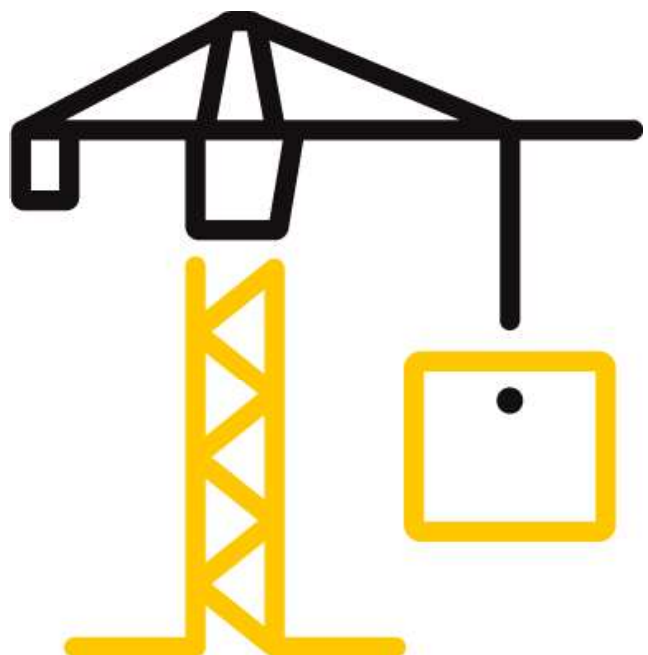
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TEST REPORT FOR ETEM S.A.

Report No.: J4219.01-113-11-R0

Date: 05/01/19

REPORT ISSUED TO

ETEM S.A. COMMERCIAL AND INDUSTRIAL LIGHT METAL SOCIETE ANONYME

1-4, Iroon Polytechniou Street

Magoula, Magoula 19018

Greece


SECTION 1


SCOPE

Intertek Building & Construction (B&C) was contracted by ETEM S.A. Commercial and Industrial Light Metal Societe Anonyme to conduct a sound transmission loss test. Results obtained are tested values and were secured by using the designated test methods. The complete test data is included herein. The client provided the test specimen. All measurements were conducted in the HT test chambers at Intertek B&C located in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

For INTERTEK B&C:

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TITLE:	Technician Team Leader Acoustical Testing
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DATE:	05/01/19

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SIGNATURE:	 <small>Digitally Signed by: Kurt A. Golden</small>
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SECTION 2

SUMMARY OF TEST RESULTS

SERIES/MODEL	E86
TYPE	Fixed Window
GLAZING (Nominal Dimensions)	1-1/2" IG (13/16" laminated exterior, 3/8" argon, 5/16" laminated interior), Glass temperature 75°F
DATA FILE NO.	J4219.01
STC	45
OITC	39

SECTION 3

TEST METHODS

The specimens were evaluated in accordance with the following:

ASTM E90-09 (2016), *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements*

ASTM E413-16, *Classification for Rating Sound Insulation*

ASTM E1332-16, *Standard Classification for Rating Outdoor-Indoor Sound Attenuation*

ASTM E2235-04 (2012), *Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods*

SECTION 4

SPECIMEN INSTALLATION

A sound transmission loss test was initially performed on a filler wall.

The specimen plug was removed from the filler wall assembly. The specimen was placed on an isolation pad in the test opening. Duct seal was used to seal the perimeter of the specimen to the test opening on both sides. The interior side of the specimen, when installed, was approximately 1/4" from being flush with the receive room side of the filler wall. A stethoscope was used to check for any abnormal air leaks around the test specimen prior to testing. Operable portions of the test specimen, if any, were cycled at least five times prior to testing.

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SECTION 10
TEST RESULTS

J4219.01 DATA

SPECIMEN AREA	4.13 m ²	RECEIVE TEMP.	22.0 °C	SOURCE TEMP	22.3 °C
TECHNICIAN	Zachary Gol	RECEIVE HUMIDITY	49%	SOURCE HUMIDIT	49%

FREQ (Hz)	BACKGROUND SPL (dB)	ABSORPTION (m ²)	SOURCE SPL (dB)	RECEIVE SPL (dB)	SPECIMEN TL (dB)	95% CONFIDENCE LIMIT	NUMBER OF DEFICIENCIES
80	39.9	5.2	107	77	30	1.52	-
100	33.7	6.1	108	76	32	1.81	-
125	35.5	6.4	108	76	30	1.16	0
160	38.4	5.3	111	77	34	1.02	0
200	36.9	4.9	110	70	39	0.71	0
250	31.7	5.7	107	71	35	0.61	3
315	25.4	5.8	108	69	38	0.34	3
400	21.5	6.1	110	68	41	0.42	3
500	18.2	6.4	108	64	42	0.35	3
630	17.9	6.0	106	61	44	0.25	2
800	16.3	6.2	106	59	45	0.50	2
1000	12.1	6.4	107	60	45	0.37	3
1250	9.6	7.0	106	60	45	0.34	4
1600	8.3	7.4	105	59	44	0.39	5
2000	7.6	7.8	105	56	47	0.22	2
2500	7.7	8.8	106	51	51	0.23	0
3150	8.1	10.2	104	48	52	0.22	0
4000	8.9	12.8	102	41	56	0.21	0
5000	10.4	16.2	102	36	60	0.19	-
STC RATING	45 (Sound Transmission Class)						
DEFICIENCIES	30 (Sum of Deficiencies)						
OITC RATING	39 (Outdoor-Indoor Transmission Class)						

- Notes:**
- 1) Receive Room levels less than 5 dB above the Background levels are red.
 - 2) Specimen TL levels listed in red indicate the lower limit of the transmission loss.
 - 3) Specimen TL levels listed in green indicate that there has been a filler wall correction applied

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