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Testing Services

November 5th, 2013

Bill Pappas
Dominion Doors & Windows Ltd.
130 Pennsylvania Avenue, #8
Concord, ON. L4K 4A8
Canada

Assignment **G-962**

Dear Bill,

Please find enclosed two copies of the test reports for the, ASTM E-90-09 (STC) tests conducted at NGC Testing Services as you requested.

Reference: NGC 2013083.

If you should have any questions or, if we can provide any assistance in the future, please feel free to contact us.

Sincerely,

Andrew E. Heuer
Senior Test Engineer

cc: R.J. Menchetti – Director File
afs

1650 Military Road • Buffalo, NY 14217-1198
(716) 873-9750 • Fax (716) 873-9753 • www.ngctestingservices.com

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Acoustical Testing Laboratory

NVLAP®
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TEST REPORT

for

Dominion Doors & Windows Ltd.
130 Pennsylvania Avenue, #8
Concord, ON L4K 4A8
Canada
Bill Pappas / 905-761-9722

Sound Transmission Loss Test

E 90-09/ E 413-10/ E 1332-10a

On

4GURD8070 / 4CL / Argon Gas / White Super SPAC Window

Report Number: NGC 2013083

Assignment Number: G-962

Test Date: 10/8/2013

Report Approval Date: 11/5/2013

Submitted by: _____
Andrew E. Heuer
Senior Test Engineer

Reviewed by: _____
Robert J. Menchetti
Director

Report Number: NGC 2013083

Test Method: This test method conforms explicitly with the American Society for Testing and Materials Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements - Designation: E 90-09/ E 413-10/ E1332-10a.

Specimen Description: Window was identified by client as, 4GURD 8070 / 4CL / Argon Gas / White Super SPAC.

Standard direction of sound from Source Room (Room 1) to Receiving Room (Room 2). The wall system was constructed in the test opening and consisted of:

- The Laboratory's Standard Filler Wall. This Filler Wall had a measured STC of 61.

- The window was mounted into a: 635.0 mm x 1066.8 mm (25 in. X 42 in.) Rough opening in the nominal Filler wall.

- Window was identified by client as: 4GURD 8070 / 4CL / Argon Gas / White Super SPAC. The window was tested as received from client with no adjustments made to the window.

- Window frame measurements of each unit were identified by client as: 609.6 mm High x 1066.8 mm Wide (24 in. H x 42 in. W).

- The perimeter of the window was caulked to the rough opening in the nominal Filler Wall.

The overall weight of the window was: 22.67 kg/m^2 (4.64 PSF)

Conditioning: Tested as received

Test Results: The results of the tests are given on pages 3 and 4.

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Sound Transmission Loss Test Data

Test: ASTM E 90 - 09 / ASTM E 413 - 10 / ASTM E 1332-10a

Test Report: NGC2013083 Date: 10/8/2013

Specimen Size [m²]: 0.7

Source room		Receiving room	
Volume [m³]:	90.4	Volume [m³]:	98.7
Rm Temp [°C]:	21.5	Rm Temp [°C]:	22
Humidity [%]:	54	Humidity [%]:	52

Sound Transmission Class STC [dB]: 30

Outdoor-Indoor Transmission Class OITC [dB]: 25

Sum of Unfavorable Deviations [dB]: 25

Max. Unfavorable Deviation [dB]: 7 at 400 Hz

Frequency [Hz]	STL [dB]	L1 [dB]	L2 [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔSTL
80	25	100.6	68.2	18.4	-7.4		1.1
100	25	104.1	71.9	16.1	-7.2		1.5
125	27	104.1	69.8	15.2	-7.3		0.7
160	23	102.8	72.7	12.5	-7.1		0.5
200	14	101.6	81.0	11.3	-6.6	6	0.4
250	22	101.0	71.7	11.9	-7.3	1	0.4
315	22	100.2	70.7	12.4	-7.5	4	0.2
400	22	99.9	70.5	13.2	-7.4	7	0.2
500	27	101.6	67.5	12.2	-7.1	3	0.1
630	30	102.6	65.4	12.2	-7.2	1	0.1
800	33	102.1	61.6	13.4	-7.5		0.0
1000	34	101.6	59.9	14.4	-7.7		0.1
1250	36	99.5	55.9	15.8	-7.6		0.0
1600	39	96.8	50.3	18.9	-7.5		0.0
2000	40	95.8	47.3	22.2	-8.5		0.0
2500	34	96.3	52.1	25.6	-10.2		0.0
3150	31	95.3	54.2	28.2	-10.1	3	0.0
4000	33	93.9	50.0	31.4	-10.9	1	0.0
5000	37	92.3	43.3	35.4	-12.0		0.0

STL = Sound Transmission Loss, dB
L1 = Source Room Level, dB
L2 = Receiving Room Level, dB
d = Decay Time, dB/second
Δ STL = Uncertainty for 95% Confidence Level

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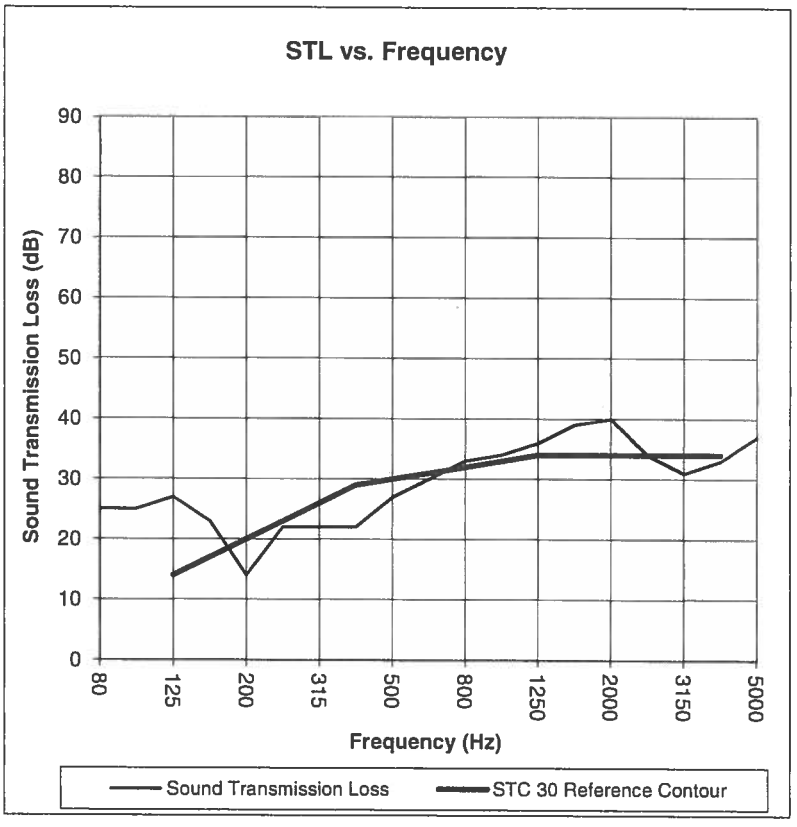
Sound Transmission Loss Test Data

Test: ASTM E 90 - 09 / ASTM E 413 - 10 / ASTM E 1332-10a

Test Report: NGC2013083
Test Date: 10/8/2013
Specimen Size [m²]: 0.65

Sound Transmission Class STC [dB]: 30 dB
Outdoor-Indoor Transmission Class OITC [dB]: 25 dB

Frequency [Hz]	STL [dB]	ΔSTL	
80	25	1.1	*
100	25	1.5	
125	27	0.7	
160	23	0.5	
200	14	0.4	
250	22	0.4	
315	22	0.2	
400	22	0.2	
500	27	0.1	
630	30	0.1	
800	33	0.0	
1000	34	0.1	
1250	36	0.0	
1600	39	0.0	
2000	40	0.0	
2500	34	0.0	
3150	31	0.0	
4000	33	0.0	
5000	37	0.0	



* Due to high insulating value of specimen, background levels limit results at these frequencies.

STL = Sound Transmission Loss, dB
Δ STL = Uncertainty for 95% Confidence Level