

**ASTM E 90 SOUND TRANSMISSION LOSS
TEST REPORT**

Rendered to:

MI WINDOWS AND DOORS, INC.

SERIES/MODEL: 1650PW

TYPE: Fixed Window

Summary of Test Results			
ATI Data File No.	Glazing Option (Nominal Dimensions)	STC	OITC
82671.01A	7/8" IG (1/8" annealed, 1/4" air space, 1/8" annealed, 1/4" air space, 1/8" annealed)	30	26
82671.01B	7/8" IG (1/8" annealed, 5/8" air space, 1/8" annealed)	28	22

Reference should be made to ATI Report No. 82671.01-113-11 for complete test specimen description. The complete test results are listed in Appendix B.

ACOUSTICAL PERFORMANCE TEST REPORT

Rendered to:

MI WINDOWS AND DOORS, INC.
P.O. Box 370
650 West Market Street
Gratz, Pennsylvania 17030-0370

Report No: 82671.01-113-11
Test Date: 04/25/08
Report Date: 05/13/08
Expiration Date: 04/25/12

Test Sample Identification:

Series/Model: 1650PW

Type: Fixed Window

Overall Size: 47-1/4" by 59"

Glazing Option A (Nominal Dimensions): 7/8" IG (1/8" Annealed, 1/4" Air Space,
1/8" Annealed, 1/4" Air Space, 1/8" Annealed)

Glazing Option B (Nominal Dimensions): 7/8" IG (1/8" Annealed, 5/8" Air Space,
1/8" Annealed)

Project Scope: Architectural Testing, Inc. was contra

Sample Descriptions:

Frame Construction:

		Frame
Size		47-1/4" by 59"
Thickness		4"
Corners		Mitered
	Fasteners	Welds
	Seal Method	None
Material		Vinyl
	Reinforcement	N/A
	Thermal Break Material	N/A
Daylight Opening Size		41-1/2" by 53-1/4"

Glazing Option A:

Measured Overall Insulation Glass Unit Thickness	0.822"
Spacer Type	Aluminum 965099.90001 3.3wB5f9.4999 6.882f94f9.4999 6.8820014ETEMC 9.4999 6.882

Sample Descriptions: (Continued)

Glazing Option B:

Measured Overall Insulation Glass Unit Thickness	0.882"
Spacer Type	Steel U Shaped

	Exterior Sheet	Gap	Interior Sheet
Measured Thickness	0.116"	0.650"	0.116"
Muntin Pattern	N/A	N/A	N/A
Material	Annealed	Air*	Annealed
Laminate Material	N/A	N/A	N/A

Sample Descriptions: (Continued)

Components:

TYPE	QUANTITY	LOCATION
Weatherstrip		
No weatherstrip	N/A	N/A

Detailed drawings, data sheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	05/13/08	N/A	Original Report Issue

Appendix A

Instrumentation:

Instrument	Manufacturer	Model	Description	ATI Number
Analyzer	Agilent Technologies	35670A	Dynamic signal analyzer	Y002929
Receive Room Microphone	G.R.A.S.	40AR	1/2", pressure type, condenser microphone	Y003246
Source Room Microphone	G.R.A.S.	40AR	1/2", pressure type, condenser microphone	Y003245
Receive Room Preamp	G.R.A.S.	26AK	1/2" preamplifier	Y003249
Source Room Preamp	G.R.A.S.	26AK	1/2" preamplifier	Y003248
Microphone Calibrator	Bruel & Kjaer	422		

Appendix B
Complete Test Results

SOUND TRANSMISSION LOSS

ASTM E90

ATI No. 82671.01A **Date**
Client MI Windows and Doors, Inc.
Specimen

Specimen Area 19.36 Sq Ft
Filler Area 120.64 Sq Ft
Operator Brandon C. Ward

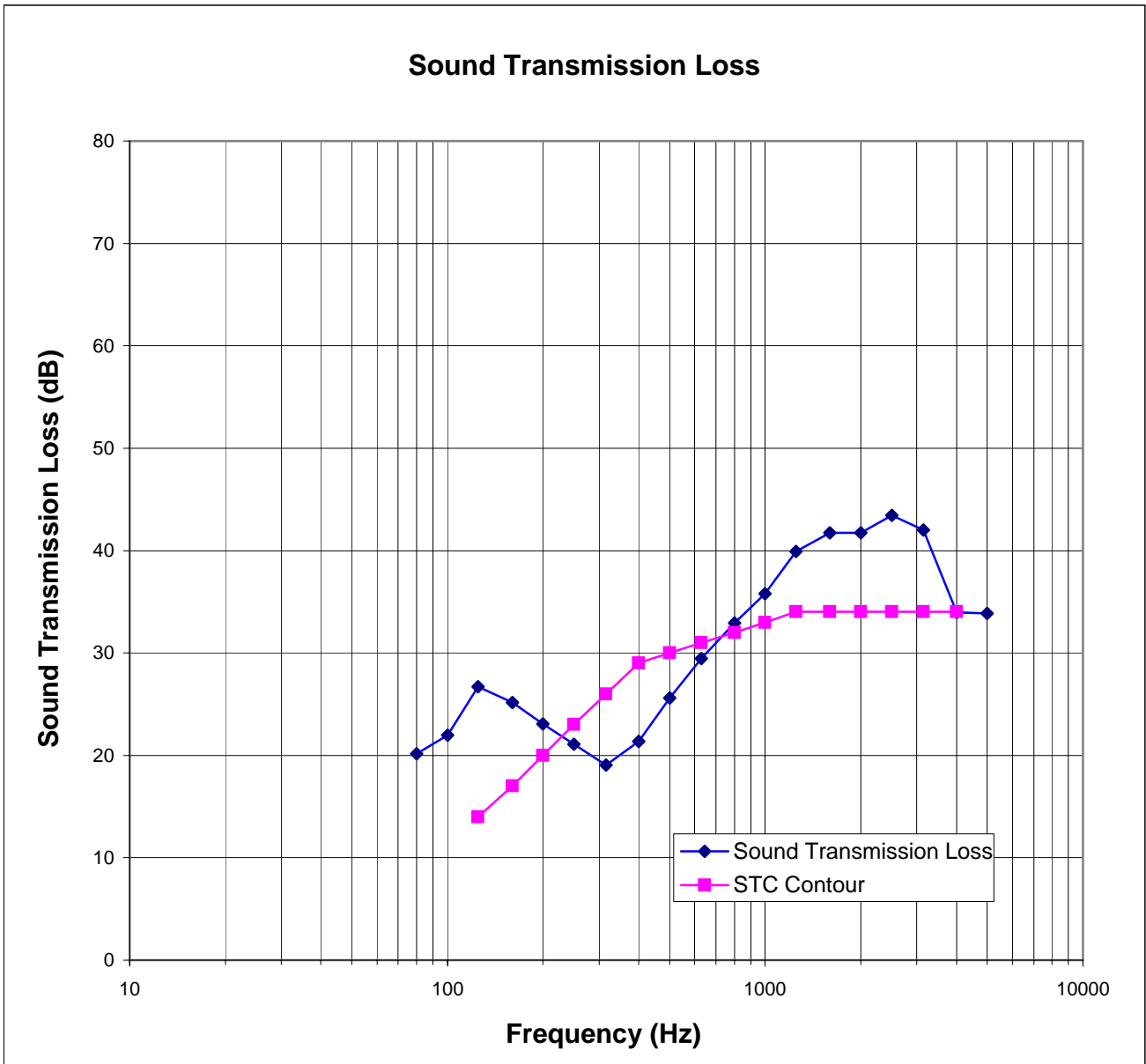
	Bkgrd	Absorp	Source	Receive	Filler	Specimen
Temp F	74.8	75.1	74.7	75.2	72.8	74.9
RH %	44.5	44.9	43.8	45.3	43.0	44.7

	Bkgrd	Absorp	Source	Receive	Filler	Specimen	95%	No. of	Trans
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Architectural Testing

ATI No. 82671.01A Date 04/25/08
Client MI Windows and Doors, Inc.
Specimen Series/Model 1650PW, fixed window with 7/8" IG (1/8" annealed, 1/4" air space, 1/8" annealed, 1/4" air space, 1/8" annealed)
Specimen Area 19.36 Sq Ft
Filler Area 120.64 Sq Ft
Operator Brandon C. Ward



Architectural Testing, Inc is accredited by the International Accreditation Service, Inc. (IAS) under the specific test methods listed under lab code TL-144, in accordance with the recognized International Standard ISO/IEC 17025:2005. The laboratory's accreditation or test report in no way constitutes or implies product certification, approval, or endorsement by IAS. This test report applies only to the specimen that was tested.

SOUND TRANSMISSION LOSS

ASTM E90

ATI No. 82671.01B **Date** 04/25/08
Client MI Windows and Doors, Inc.
Specimen Series/Model: 1650PW, fixed window with 7/8" IG (1/8" annealed, 5/8" air space, 1/8"

Specimen Area 19.36 Sq Ft
Filler Area 120.64 Sq Ft
Operator Brandon C. Ward

	Bkgrd	Absorp	Source	Receive	Filler	Specimen
Temp F	75.6	75.4	74.5	75.4	72.8	75.2
RH %	41.3	41.3	36.1	41.4	43.0	40.0

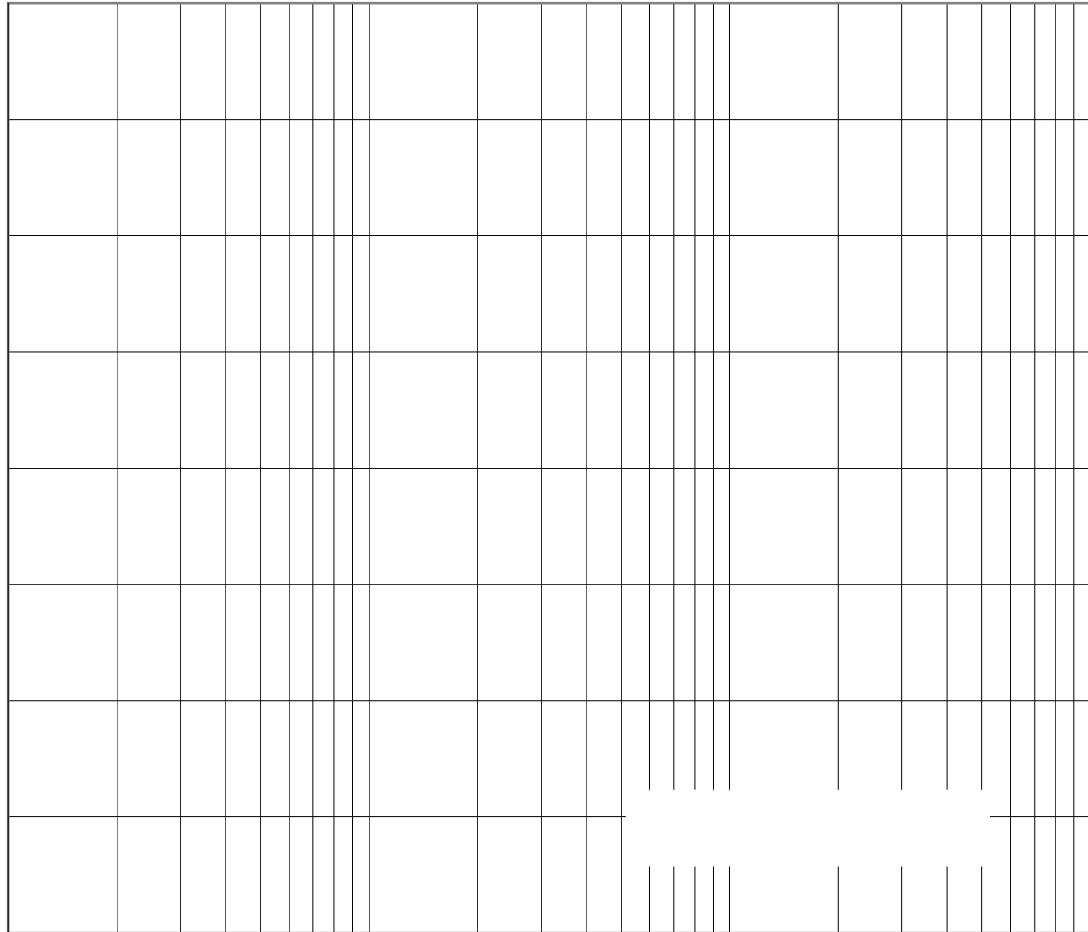
Freq (Hz)	Bkgrd SPL (dB)	Absorp (Sabines /Sq Ft)	Source SPL (dB)	Receive SPL (dB)	Filler TL (dB)	Specimen TL (dB)	95% Conf Limit	No. of Deficiencies	Trans Coef Diff
80	43.7	56.6	86.0	62.7	36.1	19	3.20	0	9.6
100	39.6	59.9	88.0	63.8	39.1	20	3.00	0	11.9
125	38.1	48.9	93.7	65.7	48.6	24	2.95	0	16.7
160	43.8	50.5	94.8	69.5	47.2	21	0.70	0	18.2
200	41.9	52.0	99.9	79.0	49.1	17	0.77	1	24.5
250	36.8	53.9	100.9	82.5	52.5	14	1.74	7	30.5
315	36.1	58.0	99.9	77.9	54.2	17	0.98	7	29.0
400	35.4	61.4	99.1	75.5	58.1	19	1.08	8	31.6
500	34.3	58.0	100.2	72.5	61.0	23	0.64	5	30.2
630	28.5	57.9	102.8	70.7	63.8	27	0.82	2	28.6
800	29.5	59.3	102.8	66.3	66.3	32	0.26	0	26.8
1000	26.9	61.4	102.5	62.9	72.3	35	0.66	0	29.8
1250	27.1	70.8	105.8	61.1	80.0	39	0.56	0	32.9
1600	22.7	70.8	111.7	64.3	81.5	42	0.29	0	31.9
2000	15.9	77.2	107.6	59.9	82.1	42	0.32	0	32.4
2500	7.7	87.9	106.1	57.9	77.1	42	0.49	0	27.6
3150	7.9	104.9	107.0	59.5	79.2	40	0.30	0	31.1
4000	7.0	129.5	105.7	65.5	80.0	32	0.30	0	40.2
5000	7.0	171.0	103.8	61.5	79.5	33	0.44	0	38.7

STC Rating = 28 *(Sound Transmission Class)*
Deficiencies = 30 *(Number of deficiencies versus contour curve)*
OITC Rating = 22 *(Outdoor/Indoor Transmission Class)*

Note: The acoustical chambers are qualified for measurements down to 80 hertz.
 Data reported below 80 hertz is for reference only.

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ATI No. 82671.01B **Date** 04/25/08
Client MI Windows and Doors, Inc.
Specimen Series/Model: 1650PW, fixed window with 7/8" IG (1/8" annealed, 5/8" air space, 1/8" annealed)
Specimen Area 19.36 Sq Ft
Filler Area 120.64 Sq Ft
Operator Brandon C. Ward



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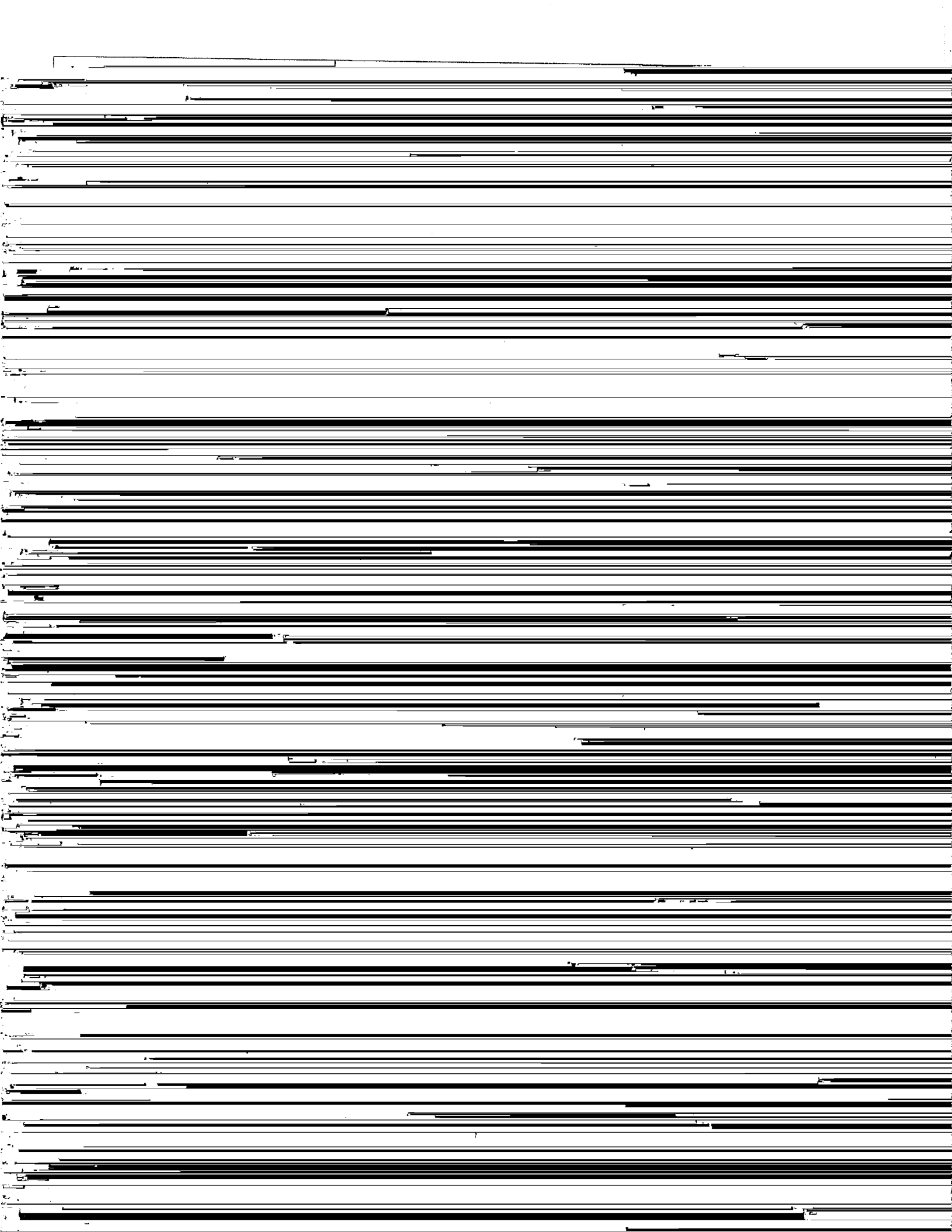
Appendix C
Design Drawings

0.255

-0.231



V-6



Appendix D

Photographs



Sample Installed in Test Chamber