

GEOLAM, INC. TEST REPORT

SCOPE OF WORK

ASTM E330/E330M TESTING ON VERTIGO 5010, CLADDING SYSTEM

REPORT NUMBER

L6450.01-109-44

TEST DATE(S)

12/18/20 - 12/21/20

ISSUE DATE

02/19/21

RECORD RETENTION END DATE

12/21/24

PAGES

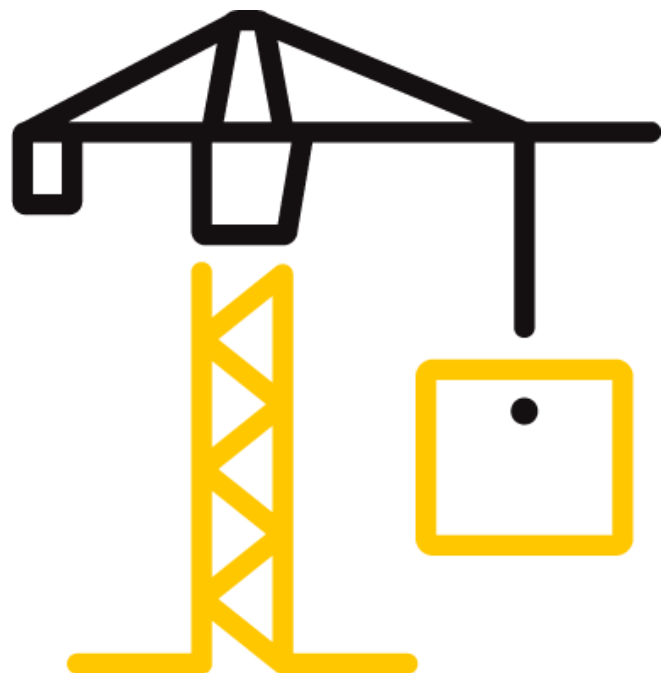
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Report No.: L6450.01-109-44

Date: 02/19/21

REPORT ISSUED TO

GEOLAM, INC.

9 Shorncliffe Avenue
Toronto, Ontario M4V 1S9
CANADA

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Geolam, Inc. to perform testing in accordance with ASTM E330/E330M on their Vertigo 5010, cladding system. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at Intertek B&C test facility in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

TITLE	RESULTS
Positive Design Pressure	+4405 Pa (+92.0 psf)
Negative Design Pressure	-5267 Pa (-110.0 psf)

For INTERTEK B&C:

COMPLETED BY:	John A. Shanabrook
TITLE:	Technician - Product Testing
SIGNATURE:	
DATE:	02/19/21

REVIEWED BY:	Daniel C. Culbert, P.E.
TITLE:	Senior Project Engineer
SIGNATURE:	
DATE:	02/19/21

JAS:vlm/nls

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SECTION 3**TEST METHOD(S)**

The specimen was evaluated in accordance with the following:

ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

SECTION 4**MATERIAL SOURCE/INSTALLATION**

Test specimen(s) were provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date. Installation of the tested specimen was performed by Intertek B&C.

The sheathing panels were mounted with #8 x 1-1/2" round head self-tapping screws spaced 24" on center through the sheathing and into the studs. Each horizontal course was made up of two panels butted together with a male interlock at the top and a female interlock on the bottom. No starter strip was utilized, but additional fasteners were set on the lower edge of each starter panel course. The specimen utilized fourteen horizontal courses.

SECTION 5**EQUIPMENT**

Tape Measure Verification: 63788

Weather Station: 63316

Control Panel: 005406

Linear Transducers: 62182, 64367, 003625, 003439

SECTION 6**LIST OF OFFICIAL OBSERVERS**

NAME	COMPANY
Daniel C. Culbert, P.E.	Intertek B&C
John A. Shanabrook	Intertek B&C

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SECTION 7

TEST SPECIMEN DESCRIPTION

Product Type: Cladding System

Series/Model: Vertigo 5010

Product Size(s):

OVERALL AREA:	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
5.9 m ² (64.0 ft ²)				
Overall size	2438	96	2438	96
Individual panel	1219	48	184	7-1/4

Panel Construction: Each panel was constructed of an extruded aluminum 0.050" thick panel coated with a wood-fiber polymer resin on the exterior face.

Test Wall Construction: The test buck measured 96" by 96" constructed of 18-gauge 2x6 galvanized steel studs wrapped with nominal 2x10 Spruce-Pine-Fir lumber. The steel studs were spaced 24" on center and were attached to the top and bottom stainless steel C-channel plates with #8 x 1-5/8" self-tapping flat head screws. A sheet of nominal 1/2" thick four-ply plywood was secured to the studs with #8 x 1-5/8" self-tapping flat head screws. Silicone was utilized on the back side of the test panel to seal the perimeter. A 2-mil thick plastic film was draped over the interior of the sheathing to enable attainment of pressure.

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SECTION 8
TEST RESULTS

The temperature range during testing was 15°C - 16°C (59°F - 60°F). The results are tabulated as follows:

TITLE OF TEST	RESULTS	NOTE
DESIGN PRESSURE		
Uniform Load Deflection, per ASTM E330 Deflections taken along the width of the specimen +4405 Pa (+92.00 psf) -4405 Pa (-92.00 psf)	8.9 mm (0.35") 13.0 mm (0.51")	1, 2
Uniform Load Structural, per ASTM E330 Permanent set taken along the width of the specimen +6607 Pa (+138.00 psf) -6607 Pa (-138.00 psf)	2.3 mm (0.09") 4.1 mm (0.16")	1, 2
Uniform Load Deflection, per ASTM E330 Deflections taken on the panel between fasteners +4405 Pa (+92.00 psf) -4405 Pa (-92.00 psf)	0.8 mm (0.03") 1.3 mm (0.05")	1, 2
Uniform Load Structural, per ASTM E330 Permanent set taken on the panel between fasteners +6607 Pa (+138.00 psf) -6607 Pa (-138.00 psf)	<0.3 mm (<0.01") <0.3 mm (<0.01")	1, 2

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TITLE OF TEST	RESULTS	NOTE
HIGHEST SUSTAINED		
Uniform Load Deflection, per ASTM E330 Deflections taken along the width of the specimen -5267 Pa (-110.00 psf)	21.6 mm (0.85")	1, 2
Uniform Load Structural, per ASTM E330 Permanent set taken along the width of the specimen -7900 Pa (-165.00 psf)	10.2 mm (0.40")	1, 2
Uniform Load Deflection, per ASTM E330 Deflections taken on the panel between fasteners -5267 Pa (-110.00 psf)	0.8 mm (0.03")	1, 2
Uniform Load Structural, per ASTM E330 Permanent set taken on the panel between fasteners -7900 Pa (-165.00 psf)	1.0 mm (0.04")	1, 2

General Note: All testing was performed in accordance with the referenced standard(s).

Note 1: Loads were held for 10 seconds.

Note 2: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

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SECTION 9

PHOTOGRAPH



Photo No. 1
Vertigo 5010, Cladding System



Total Quality. Assured.

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Facsimile: 717-764-4129
www.intertek.com/building

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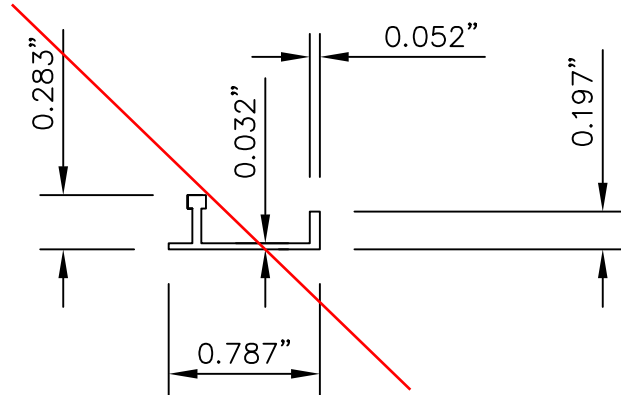
SECTION 10

DRAWING

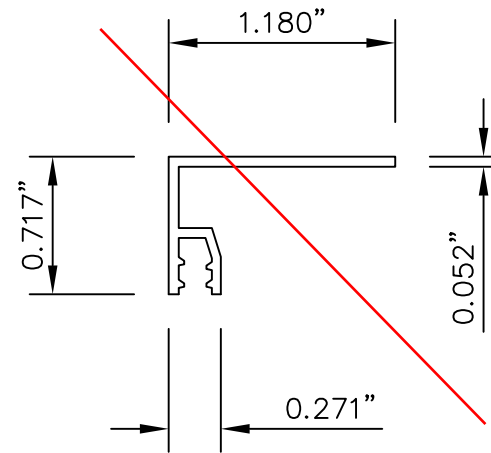
The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

BILL OF MATERIALS

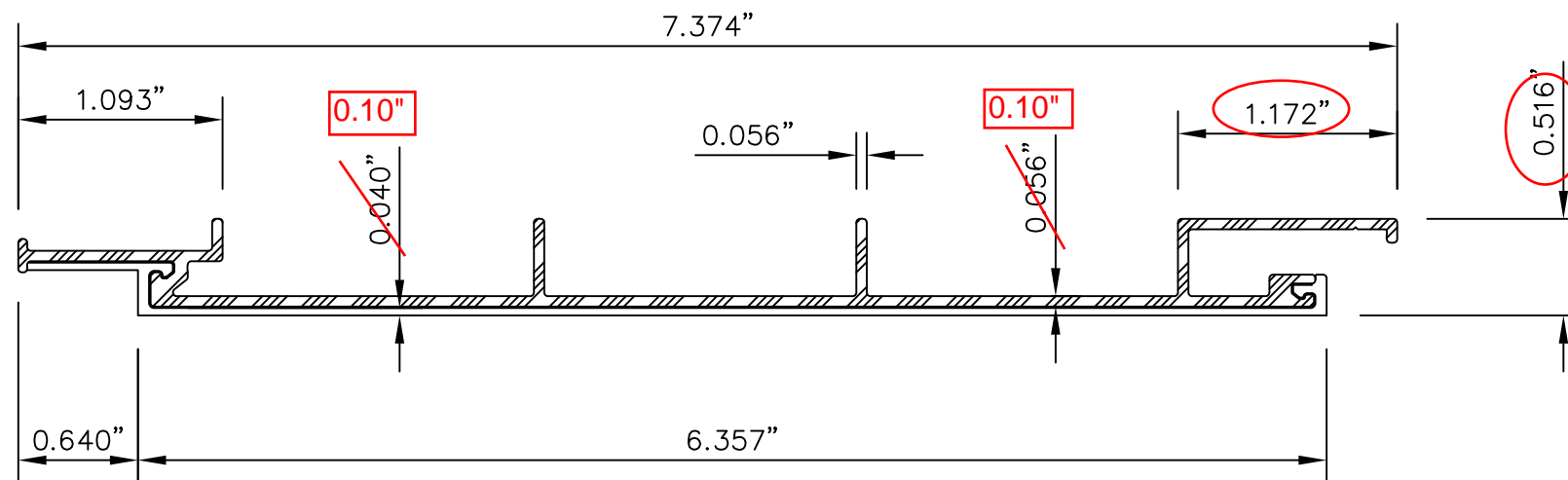
BILL OF MATERIALS		
#	DESCRIPTION	MATERIAL
01	TRIM COVER	6063-T5 ALUMINUM
02	TRIM BASE	6063-T5 ALUMINUM
03	5010 PANEL	6063-T5 ALUMINUM WITH BONDED WOOD FIBER/CO-POLYMER RESIN EXTERIOR



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SECTION 11

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	02/19/21	N/A	Original Report Issue