

POLY VINYL COMPANY TEST REPORT

SCOPE OF WORK

ASTM E330 TESTING ON UPSIDE, DECK CEILING

REPORT NUMBER

K6952.01-109-44

TEST DATE(S)

02/27/20

ISSUE DATE

03/16/20

RECORD RETENTION END DATE

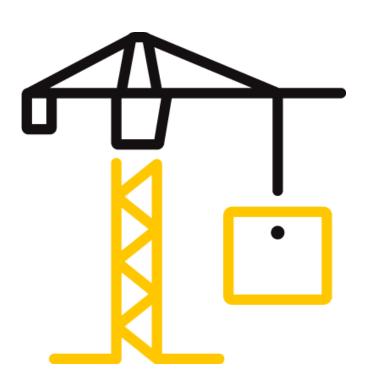
02/27/24

PAGES

15

DOCUMENT CONTROL NUMBER

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TEST REPORT FOR POLY VINYL COMPANY

Report No.: K6952.01-109-44

Date: 03/16/20

REPORT ISSUED TO

POLY VINYL COMPANY

320 Range Line Road Sheboygan Falls, Wisconsin 53085

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Poly Vinyl Company to perform testing in accordance with ASTM E330 on their Upside, deck ceiling. 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	+1596 Pa (+33.33 psf)
Negative Design Pressure	-798 Pa (-16.67 psf)
Positive Uniform Load Structural Test Pressure	+2394 Pa (+50.00 psf)
Negative Uniform Load Structural Test Pressure	-1197 Pa (-25.00 psf)

For INTERTEK B&C:

COMPLETED BY:	Robert J. Beatty	REVIEWED BY:	Timothy J. McGill
	Technician –		
TITLE:	Product Testing	TITLE:	Manager – Product Testing
SIGNATURE:		SIGNATURE:	
DATE:	03/16/20	DATE:	03/16/20
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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 was 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.

The specimen was installed onto the underside of a nominal horizontal 2x6 Spruce-Pine-Fir wood test deck with a nominal 2x8 Spruce-Pine-Fir frame. The test deck measured 120" x 120" with joists spaced 16" on center. Installation of the tested product was performed by the client.

The installation was performed per the manufacturer's instructions.

SECTION 5

EQUIPMENT

Tape Measure Verification – 63788 Weather Station – 63316 Control Panel – 004869 Linear Transducers – 64280, 64306, 64278, Y002772

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Robin McCoy	Poly Vinyl Company
Timothy J. McGill	Intertek B&C
Robert J. Beatty	Intertek B&C

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SECTION 7

TEST SPECIMEN DESCRIPTION

Product Type: Deck Ceiling Series/Model: Upside

Product Size(s):

OVERALL AREA:	WIDTH		HEIGHT	
9.3 m ² (100.0 ft ²)	millimeters	inches	millimeters	inches
Overall size	3048	120	3048	120
Channel size	152	6	3048	120

System Construction:

SYSTEM MEMBER	MATERIAL	DESCRIPTION
Quick install track	PVC	Extruded, the quick install track was installed on one side of each joist flush with the bottom and was secured with #10 x 1-1/4" self-tapping hex washer head screws located 4" from the ends and spaced 15" on center. (Reference Quick Install Track Drawing)
Edge trim	PVC	Extruded, the edge trim was attached to the sides of the 2x8 frame parallel with the joists and flush with the bottom of the frame. The edge trim was secured with #8 x 3/4" hex washer head screws located 2" from the ends and spaced 8" on center. (Reference Edge Trim Drawing)
Starter strip	PVC	Extruded, the starter strips ran perpendicular to the joists and were located 4" from the ends of the joists and 16" on center. The starter strips were secured to the quick install strips at each joist location with #10 x 3/4" self-tapping hex washer head screws. (Reference Starter Strip Drawing)
Glide clip	PVC	Injection molded, the glide clips were snapped onto the starter strip. One glide clip per channel was used at each starter strip location. (Reference Clip Drawing)
C channel	PVC	Extruded, the C channel was located perpendicular to the channels at one end and was slotted into the edge trim at each end. (Reference C Channel Drawing)

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Channel PVC

Extruded, the channel utilized a male interlock on one side and a female interlock on the opposite side. The female interlock was snapped into the glide clip at the starter strip locations and the male interlock was snapped into the female interlock of the previous channel. The first channel was a partial piece with the male interlock trimmed off. The trimmed edge of the first channel was slotted into the edge trim and the female interlock was snapped into the glide clips. The last channel was a partial piece with the female interlock trimmed off. The trimmed edge of the last channel was slotted into the edge trim and the male interlock was snapped into the female interlock of the previous piece. Nineteen full courses and two partial courses were used. (Reference Channel Drawing)



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SECTION 8

TEST RESULTS

The temperature during testing was 18°C (65°F). The results are tabulated as follows:

TITLE OF TEST	RESULTS	NOTE
Uniform Load Deflection,		
per ASTM E330		
Deflections taken between clips		
+1676 Pa (+35.00 psf)	24.9 mm (0.98")	
-958 Pa (-20.00 psf)	14.2 mm (0.56")	1, 2
Uniform Load Deflection,		
per ASTM E330		
Deflections taken at the center of the channel		
between clips		
+1676 Pa (+35.00 psf)	22.4 mm (0.88")	
-958 Pa (-20.00 psf)	14.0 mm (0.55")	1, 2
Uniform Load Structural,		
per ASTM E330		
Permanent set taken between clips		
+2394 Pa (+50.00 psf)		
-1197 Pa (-25.00 psf)	3.0 mm (0.12")	
	1.8 mm (0.07")	1, 2
Uniform Load Structural,		
per ASTM E330		
Permanent set taken at the center of the channel		
between clips		
+2394 Pa (+50.00 psf)	2.3 mm (0.09")	
-1197 Pa (-25.00 psf)	1.8 mm (0.07")	1, 2
Uniform Load Deflection,		
per ASTM E330		
+2633 Pa (+55.00 psf)	Failed	3
Uniform Load Deflection,		
per ASTM E330		
-1436 Pa (-30.00 psf)	Failed	4

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

Note 1: Loads were held for 30 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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Note 3: The unit failed at the test load when the 2x6 joist broke.

Note 4: The unit failed at the test load when the screw attaching the starter strip to the quick install track disengaged.

SECTION 9

PHOTOGRAPH



Photo No. 1 Upside, Deck Ceiling

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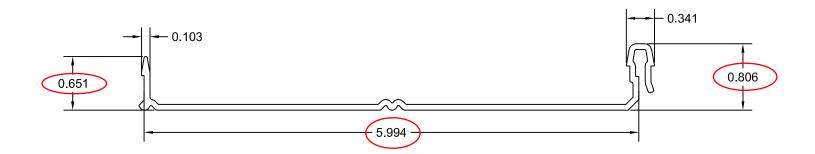
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SECTION 10

DRAWINGS

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.

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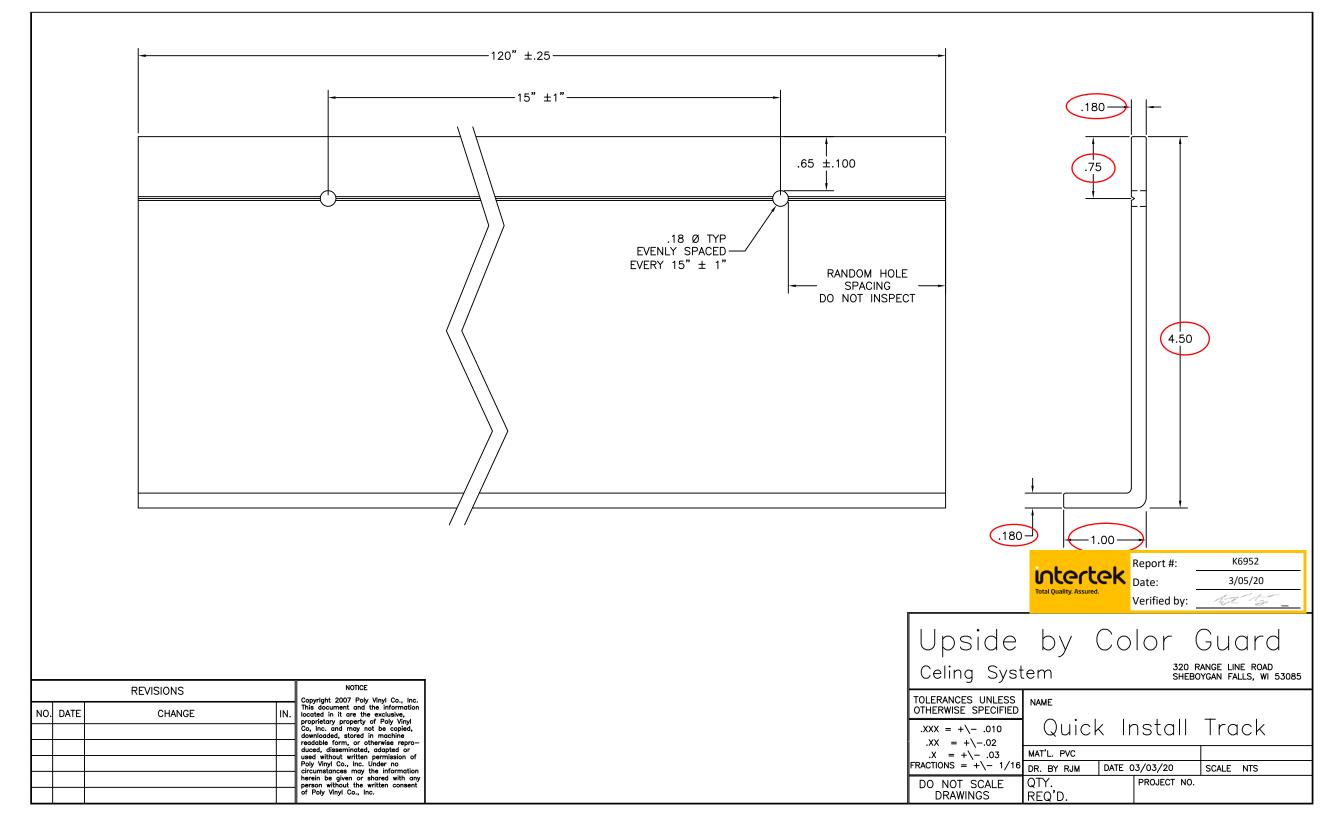


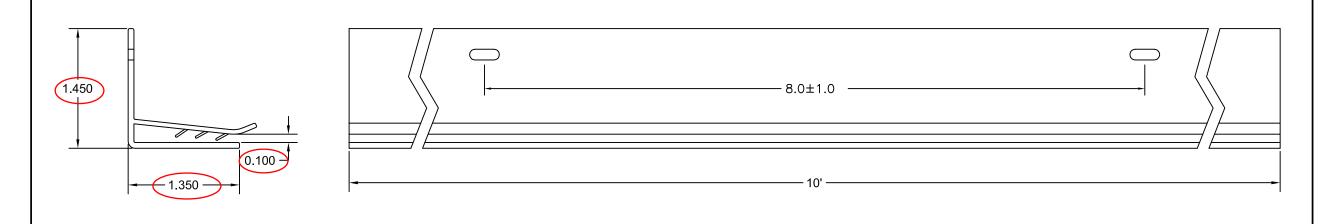
Length 10' 12' 16' Color White & Tan



320 RANGE LINE ROAD SHEBOYGAN FALLS, WI 53085

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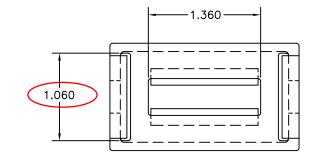


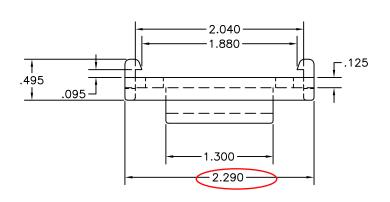


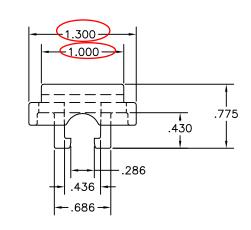
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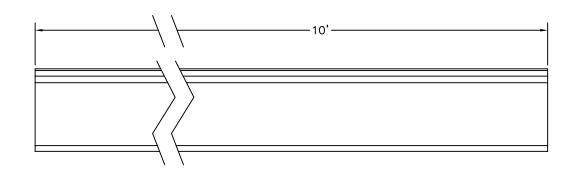


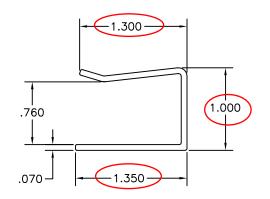




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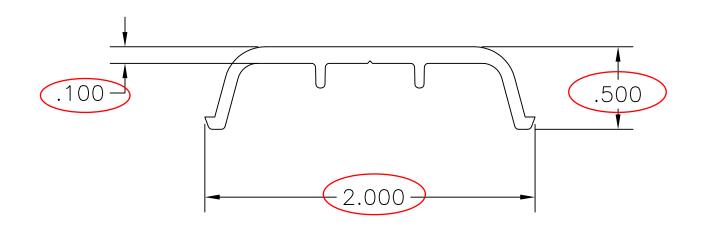


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SECTION 11

REVISION LOG

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