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SOLAR WAREHOUSE
MIAMI-DADE TEST REPORT

SCOPE OF WORK
TAS 100(A)-23 TESTING ON SWH PV MOUNTING SYSTEM

REPORT NUMBER
R5185.01-109-18

TEST DATE
09/04/2024

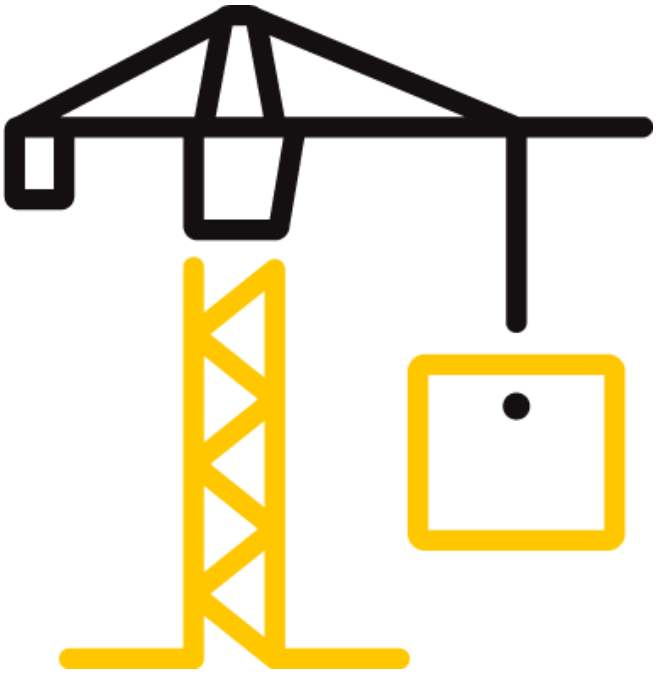
ISSUE DATE
11/15/24

MIAMI-DADE COUNTY NOTIFICATION NO.
ATI 24053

LABORATORY CERTIFICATION NO.
22-0428.14

PAGES
15

DOCUMENT CONTROL NUMBER
RT-R-AMER-Test-7808 (06/05/24)



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TEST REPORT FOR CUSTOMER NAME
Report No.: R5185.01-109-18
Date: 11/15/24

REPORT ISSUED TO
SOLAR WAREHOUSE
9628 Valley Blvd
Rosemead, California 91770

SECTION 1
SCOPE

Intertek Testing Services NA, Inc. dba Intertek Building & Construction (B&C) was contracted by Solar Warehouse to perform TAS 100(A) testing in accordance with Miami-Dade County requirements on SWH PV 8" standoff. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at the Intertek B&C test facility in York, Pennsylvania.

TANYA A. DOLBY LICENSE No. 93536 STATE OF FLORIDA PROFESSIONAL ENGINEER

2024.11.18 20:12:37 -05'00'

For INTERTEK B&C:

COMPLETED BY:	Tyler J. Holland	**REVIEWED BY:**	Tanya A. Dolby, P.E.
TITLE:	Foreman - Product Testing	**TITLE:**	Engineering Manager – Engineering Services
SIGNATURE:	Digitally Signed by: Tyler J. Holland	**SIGNATURE:**	Digitally Signed by: Tanya Dolby
DATE:	11/15/24	**DATE:**	11/15/24

TJH:mas

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SECTION 2
TEST METHOD

The specimen was evaluated in accordance with the following:

> **TAS 100 (A)-23**, *Test Procedure for Wind and Wind Driven Rain Resistance and/or Increased Windspeed Resistance of Soffit Ventilation Strip and Continuous or Intermittent Ventilation System Installed at the Ridge Area.*

SECTION 3
MATERIAL SOURCE

Test sample materials were provided by the client from Solar Warehouse located at 9628 Valley Blvd California 91770. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of ten years from the test completion date.

SECTION 4
EQUIPMENT/CALIBRATION

Wind Generator - Vane Axial Fan Y003346
Scale – 65571
Stopwatch – INT00975
Weather Station - 63316

Windstream, water supply, and water distribution calibration were performed prior to testing. Reference Intertek B&C Calibration Report No. R5185.05-109-18, dated 09/05/24, for descriptions and results.

SECTION 5
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Tyler J. Holland	Intertek B&C
Timothy J. McGill	Intertek B&C

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SECTION 6
TEST SPECIMEN DESCRIPTION

Manufacturer: Solar Warehouse
Product Type: Standoff Solar Mounting Roof Attachment System
Series/Model: MR-SW-HP-8S

Roof Deck Description: An 8' 0" wide by 6' 0" long roof deck on a 2:12 slope was utilized. The roof deck consisted of #2 Spruce-Pine-Fir nominal 2x6 intermediate supports sheathed with APA 32/16 span rated 15/32" plywood sheathing. The intermediate supports were spaced 24" on center. The plywood was secured to the rafters with 8d common nails spaced 6" on center around the perimeter and 12" on center at the intermediate supports.

Underlayment, and Prepared Roof Covering Description: The underlayment consisted of a single layer of an ASTM D226, Type II with a 4-inch (102 mm) headlap. All endlaps were 6" inches (152 mm. The underlayment was attached to the deck in a grid pattern of 12 inches (305 mm) between the overlaps, with 6-inch (152 mm) spacing at the overlaps. All fasteners securing the underlayment were 1 1/4" cap nails.

SWH PV 8" VERSION STANDOFF DESCRIPTION: The 8" standoff was constructed of a 1" diameter by 8" long piece of aluminum. At the one end of the standoff a customized 5/16"x 3 ½" stainless steel lag screw with a 1 ½" piece of all thread welded to the top screwed into the one side of the standoff. The standoff was mounted through the plywood into the joist for installation. A 12"x12" aluminum flashing was placed over the aluminum post and shingled under the asphalt shingles then the rubber gasket was located on top of the flashing. The top end of the standoff had a 1/4"x 2"x 3" aluminum angle bracket for solar panel installation mounted to the 8" long aluminum with a 3/8" x 1" stainless steel hex bolt an 3/8" diameter washer.

Conditioning: The test deck was conditioned in a chamber at a temperature of 135 degrees Fahrenheit for a total of sixteen continuous hours.

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SECTION 7
TEST RESULTS

Protocol TAS 100(A)-23, *Test Procedure for Wind and Wind Driven Rain Resistance and/or Increased Windspeed Resistance of Soffit Ventilation Strip and Continuous or Intermittent Ventilation System Installed at the Ridge Area.*

Test Date(s): 09/04/24
The temperature during testing was 22°C (71°F). The results are tabulated as follows:

Test Procedure: The wind speed intervals were conducted as follows:

Interval No.	Wind Speed (mph)	Time (min)	Water Spray
1	35	15	On
2	0	5	Off
3	70	15	On
4	0	5	Off
5	90	15	On
6	0	5	Off
7	110	5	On
8	0	5	Off

Test Results: The TAS 100(A) test results are as follows:

Wind Speed	Results
35 mph	0 oz.
70 mph	0 oz.
90 mph	0 oz.
110 mph	0 oz.

Result(s): Pass

***Note 1**: Tested at a 2:12 roof pitch.*

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SECTION 8
CONCLUSION

The specimen(s) tested met the performance requirements set forth in the protocols.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will 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.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

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SECTION 9
PHOTOGRAPHS

Photo No. 1
Top Side Before Testing

Photo No. 2
Underside Before Testing

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TEST REPORT FOR CUSTOMER NAME
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Photo No. 3
35 MPH Top Side

Photo No. 4
35 MPH Underside

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TEST REPORT FOR CUSTOMER NAME
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Photo No. 5
70 MPH Top Side

Photo No. 6
70 MPH Underside

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Photo No. 7
90 MPH Top side

Photo No. 8
90 MPH Underside

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TEST REPORT FOR CUSTOMER NAME
Report No.: R5185.01-109-18
Date: 11/15/24

Photo No. 9
110 MPH Top Side

Photo No. 10
110 MPH Underside

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TEST REPORT FOR CUSTOMER NAME
Report No.: R5185.01-109-18
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Photo No. 11
Post Test Top Side

Photo No. 12
Post Test Underside

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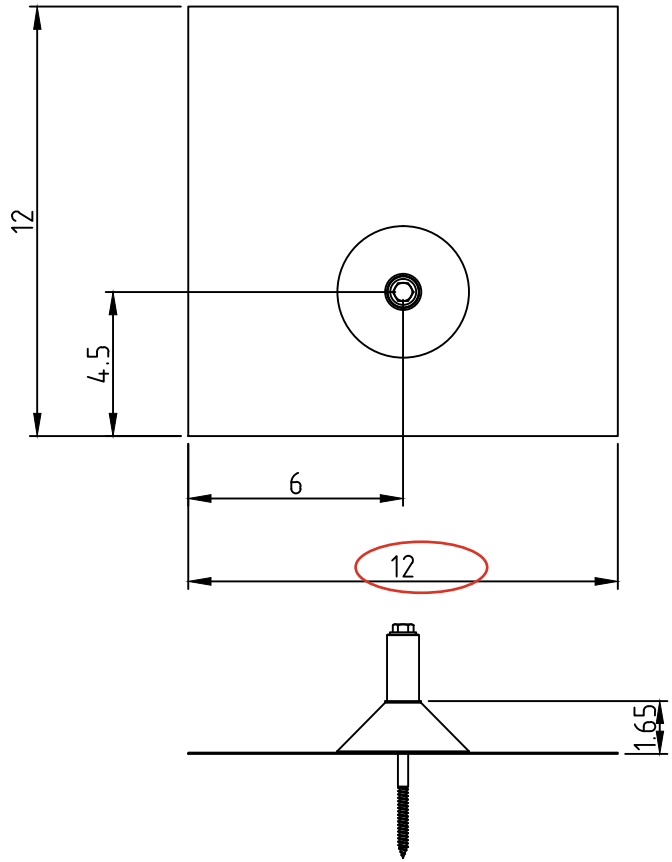
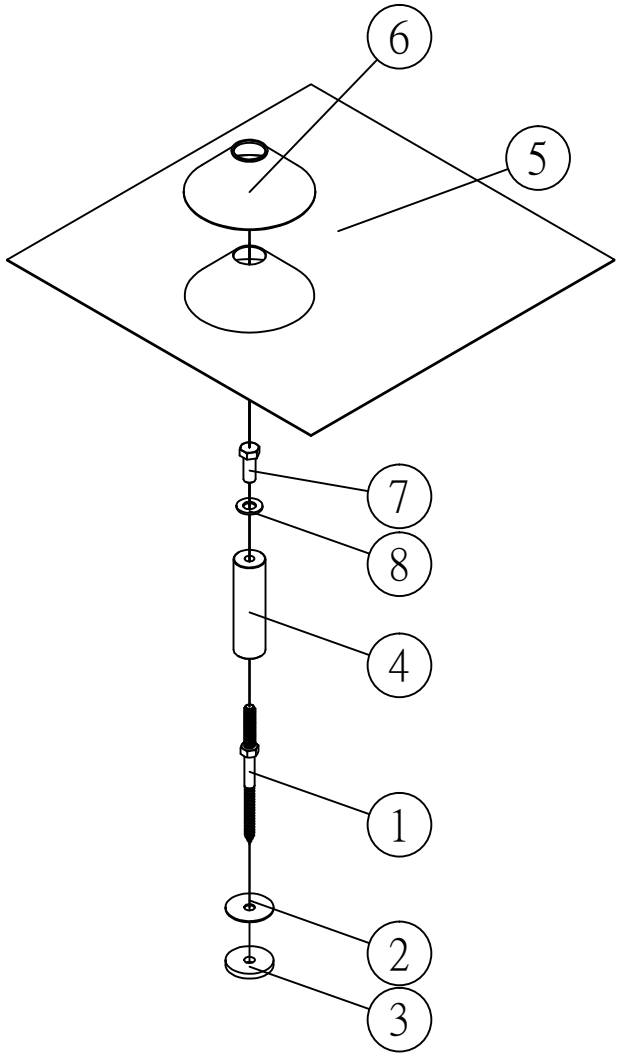
SECTION 10
DRAWINGS

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.





ITEM NO.	DESCRIPTION	QTY.
1	5/16" SS THREADED LAG BOLT(1.5"+3.5")	1
2	1.5" OD SS FLAT WASHER	1
3	1.5" OD RUBBER GASKET(OPTIONAL)	1
4	1" OD ALUMINUM POST×3.5"/5"/8" H	1
5	12"×12" ALUMINUM FLASHING	1
6	RUBBER GASKET	1
7	3/8"×1" HEX BOLT	1
8	3/8 " WASHER	1

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Report #: R5185.01
Date: 10/16/24
Verified by: Tim McGill

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SECTION 11
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	11/15/24	N/A	Original Report Issue