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SUNMODO CORPORATION

MIAMI-DADE TEST REPORT

SCOPE OF WORK
TAS 100(A) TESTING ON SOLOFLASH, ROOF MOUNTS

REPORT NUMBER
K6195.01-109-18

TEST DATE(S)
02/06/20

ISSUE DATE
03/03/20

RECORD RETENTION END DATE
02/06/30

MIAMI-DADE COUNTY NOTIFICATION NO.
ATI 20008

LABORATORY CERTIFICATION NO.
19-0321.16

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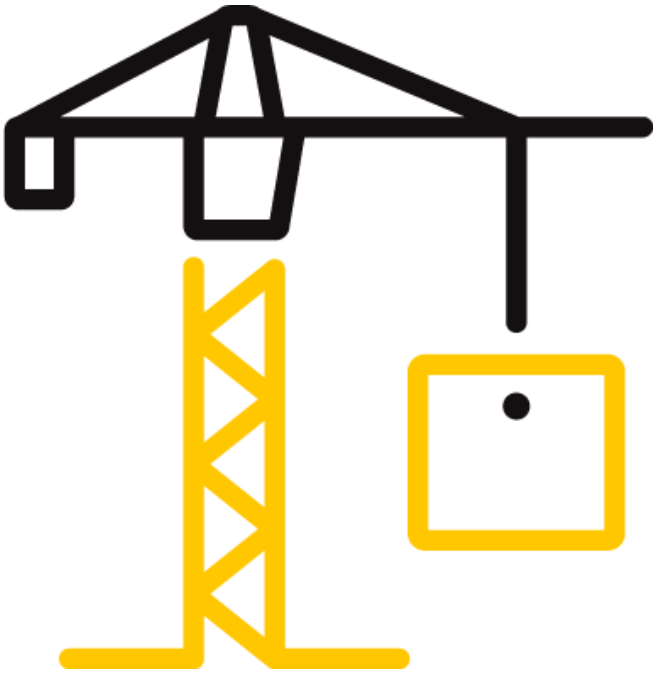

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TEST REPORT FOR SUNMODO CORPORATION
Report No.: K6195.01-109-18
Date: 03/03/20

REPORT ISSUED TO
SUNMODO CORPORATION
14800 NE 65th Street
Vancouver, Washington 98682

SECTION 1
SCOPE

Intertek Building & Construction (B&C) was contracted by SunModo Corporation to perform TAS 100(A) testing in accordance with Miami-Dade County requirements on their SoloFlash, roof mount. 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. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

DANIEL C. CULBERT LICENSE No. 83035 STATE OF FLORIDA PROFESSIONAL ENGINEER

For INTERTEK B&C:

COMPLETED BY:	Kyle W. Ruth	**REVIEWED BY:**	Daniel C. Culbert, P.E.
TITLE:	Technician Product Testing	**TITLE:**	Senior Project Engineer
SIGNATURE:	Digitally Signed by: Kyle Ruth	**SIGNATURE:**	Digitally Signed by: Daniel Craig Culbert
DATE:	03/03/20	**DATE:**	03/03/20 2020.03.03 17:15:32 -05'00'

KWR:nls

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SECTION 2
TEST METHOD(S)

The specimen was evaluated in accordance with the following:

> TAS 100(A)-95, *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
CALIBRATION

Windstream, water supply, and water distribution calibration were performed prior to testing. Reference Intertek B&C Calibration Report No. K5146.02-109-18, dated 1/8/20, for descriptions and results.

SECTION 4
MATERIAL SOURCE

Test specimens were provided by the client. 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 5
EQUIPMENT

Vane Axial Fan – Y003346
Stopwatch - INT00974

SECTION 6
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Tyler J. Holland	Intertek B&C
Timothy J. McGill	Intertek B&C
Daniel C. Culbert, P.E.	Intertek B&C
Kyle W. Ruth	Intertek B&C

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SECTION 7
TEST SPECIMEN DESCRIPTION

Product Type: SoloFlash
Series/Model: Roof Mount

Product Size(s):

OVERALL AREA:	**WIDTH**		**LENGTH**	
0.1 m^2 (0.8 ft^2)	**millimeters**	**inches**	**millimeters**	**inches**
Flashing size	229	9	318	12-1/2
Mount size	51	2	51	2

Roof Deck Description: An 8' 0" wide by 6' 0" long roof deck with 2:12 slope was utilized. The roof deck consisted of #2 Spruce-Pine-Fir nominal 2x6 rafters sheathed with 15/32" plywood. The rafters were spaced 24" on center. The plywood was secured to the rafters with 1-5/8" drywall screws spaced 6" on center around the perimeter and 12" on center at the intermediate supports. The plywood sheathing was covered with 30# felt underlayment and three-tab shingles.

SoloFlash Roof Mount Description/Installation: The test specimens consisted of a 9" by 12-1/2" by 0.040" thick aluminum flashing and a 2" by 2" by 3-1/8" high by 1/4" thick aluminum mount. One 11/32" diameter installation hole was located on each 2" side of the base. A 2" by 1-1/2" by 1/4" thick self-stick foam pad was attached under the installation hole. A 7/32" pilot hole was drilled 2-1/4" below the leading edge of the next course of shingles directly into the rafter, then filled with sealant. The next course of shingles was then lifted and the flashing was slid under. The underside of the flashing was sealed with sealant per the manufacturer's installation instructions. The mount was then placed over the flashing and pre-drilled hole and secured with a 5/16" by 4-1/4" lag bolt with 3/4" diameter washer and foam seal.

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SECTION 8
TEST RESULTS

Protocol TAS 100(A)-95, *Wind Driven Rain*

Test Date(s): 2/6/20
The temperature during testing was 4°C (40°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	Allowed
35 mph	0 oz.	No leakage
70 mph	0 oz.	No leakage
90 mph	0 oz.	No leakage
110 mph	0 oz.	No leakage
Total	0 oz.	No leakage

Results: Pass

General Note: Six roof attachments were installed on a common deck. Two SoloFlash mounts were evaluated with no leakage.

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SECTION 9
PHOTOGRAPHS

Photo No 1
Top Side of Test Deck Before Testing

Photo No. 2
SoloFlash Test Specimen

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Photo No. 3
Underside of Test Deck Before Testing

Photo No. 4
35 MPH

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Photo No. 5
70 MPH

Photo No. 6
90 MPH

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Photo No. 7
110 MPH

Photo No. 8
Underside of Deck After Testing

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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.

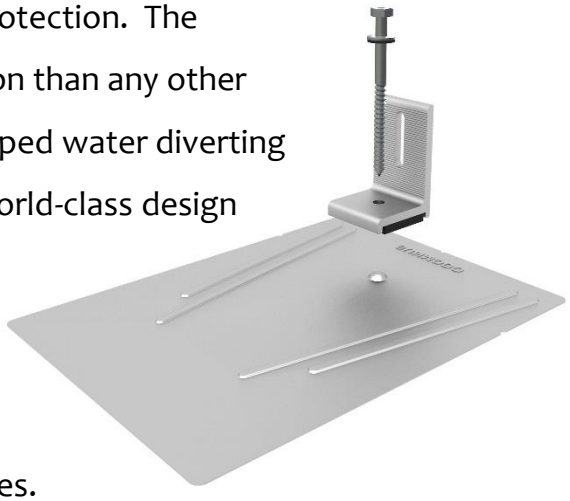
Report #:	K6195.01-109-18
Date:	2/11/20
Verified by:	

SoloFlash™

A Flashing System That Simply Won't Leak

SunModo offers the SoloFlash with 6 Levels of Water Leak Protection.

The SoloFlash ensures that each roof penetration is sealed by design. The lag screw comes with an EPDM sealing gasket for topside leak protection. The revolutionary USWR sealing gasket offers more leak protection than any other product found on the market. Combine this with its cone-shaped water diverting feature embossed in the aluminum flashing and you have a world-class design that simply doesn't leak.

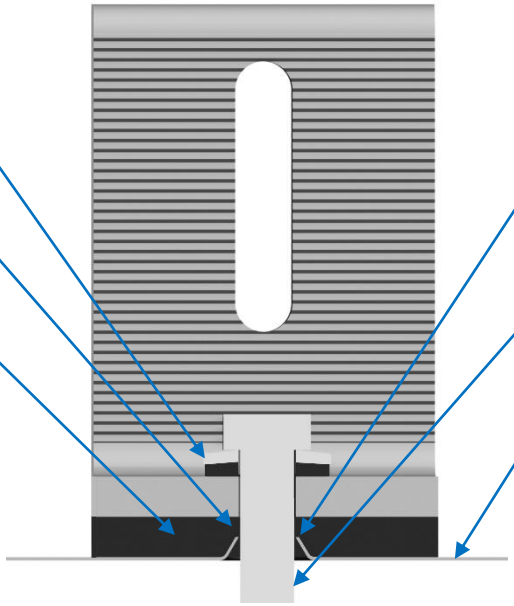


The SoloFlash is supplied with a prophylactic coating which protects the aluminum flashing from the harmful anti-moss/algae sprays found on today's residential asphalt shingles. This added layer of protection ensures this product will meet its 25-year product warranty.

The SoloFlash is an easy-to-install PV mount flashing system. The SoloFlash kits are available in two colors: silver (K50538-001) and black (K50538-BK1).

SoloFlash's 6 Levels of Water Leak Protection:

1. Topside EPDM sealing washer
2. USWR sealing gasket provides a radial seal
3. USWR sealing gasket provides a compression seal



4. Cone-shaped water diverting feature embossed into the Flashing
5. Silicone caulking inside the pilot hole
6. Silicone caulking under the flashing

Section View

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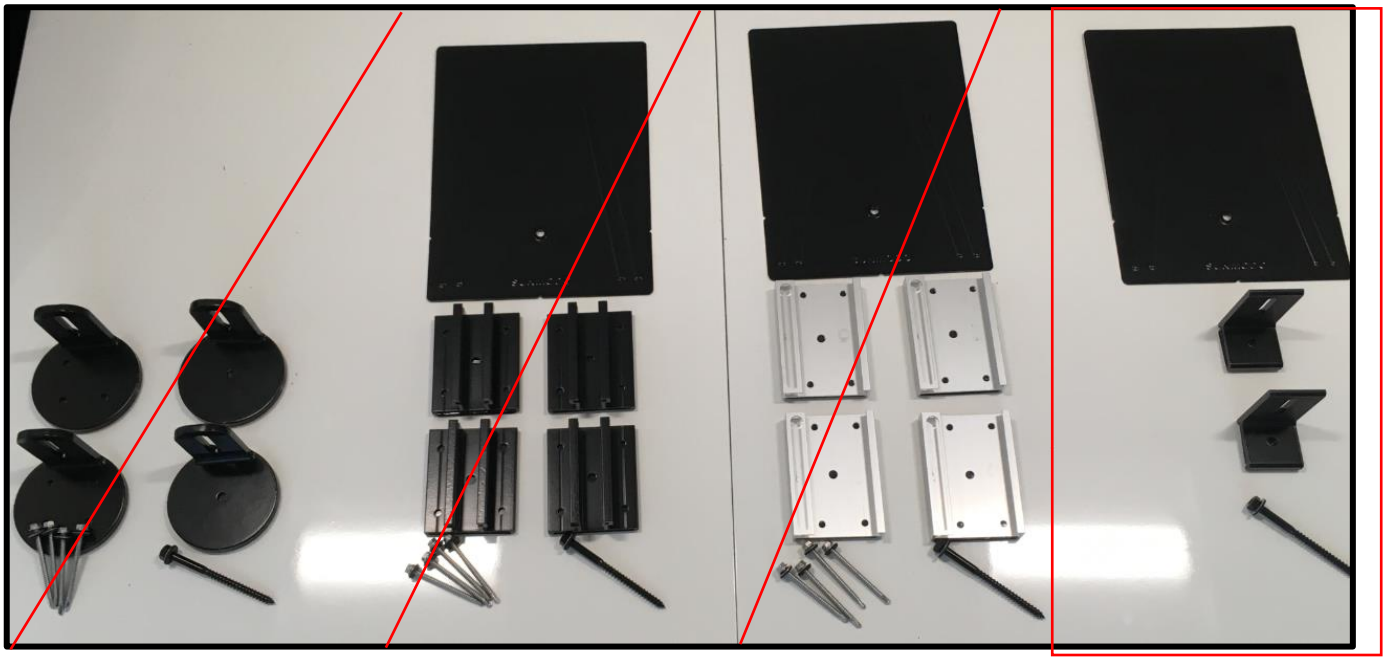
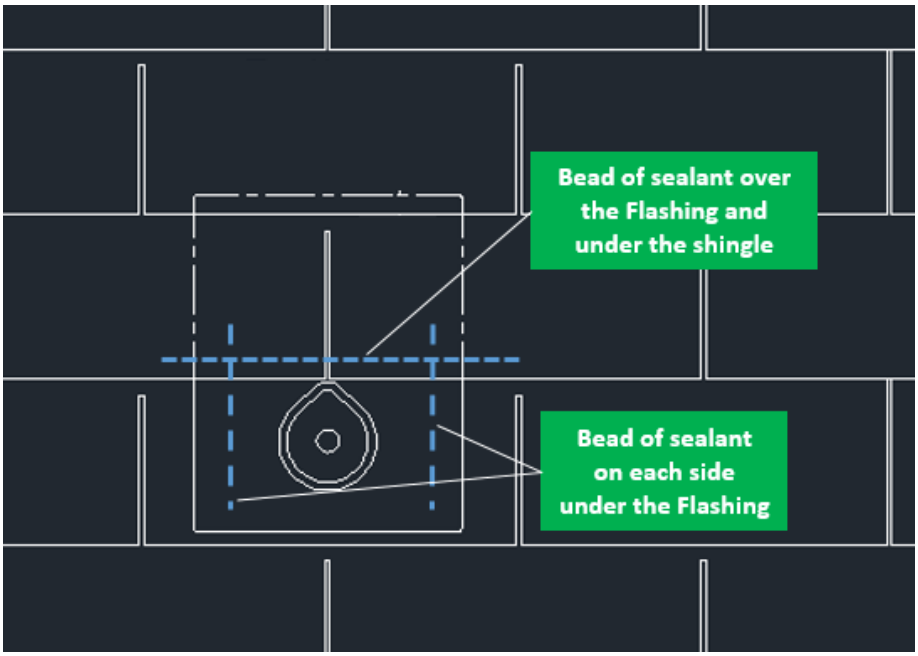
Verified by:	

Pitched Roof Attachments

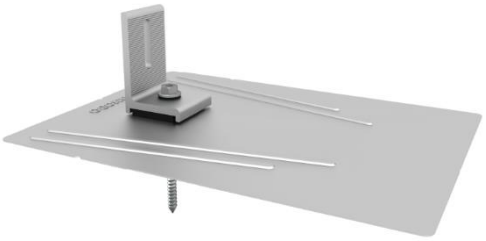


Nano Mount **SunFlash** **SunDock** **SoloFlash**

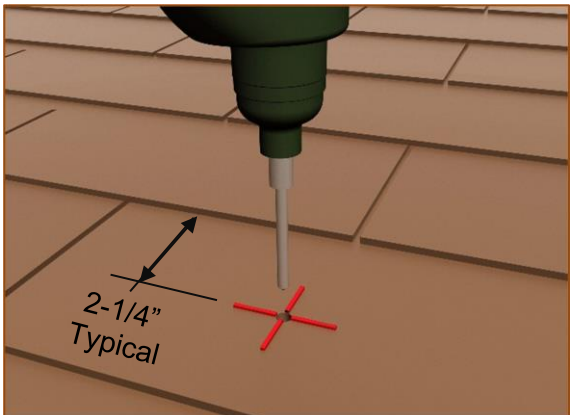
Sealant Application:



SoloFlash K50538-001:



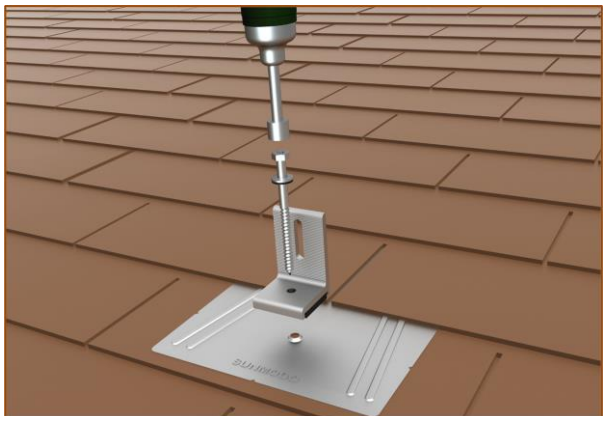
Pilot Hole

From the desired rafter location, move down the roof 2-1/4" from the bottom of the shingle, and drill the pilot hole for the Lag Bolt with a 7/32" drill bit. For maximum strength, the hole should not be more than 3" in depth, and a drill stop may be used to insure this. Clean sawdust, and fill hole with sealant, such as Chem-link M1 for wood and composite roofs.	

Flashing Installation

Use roofer bar to lift roof shingle, slide the flashing under shingle. For additional waterproofing apply beads of sealant as shown in "Sealant Application."	

Lag Bolt Installation

Place the L-Foot onto the Flashing and install the 5/16" [M8] Lag Bolt. Do not over tighten.	

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SECTION 11
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	03/03/20	N/A	Original Report Issue