

ESDEC, INC. TEST REPORT

SCOPE OF WORK

UL 441 TESTING ON ECOFASTEN'S SIM-SUPPORT ROOF ATTACHMENT

REPORT NUMBER

105106865LAX-005

ISSUE DATE

22-JULY-2022

PAGES

7

DOCUMENT CONTROL NUMBER

GFT-OP-10a (21-June-2019)

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SUMMARY REPORT

22-JULY-2022

Intertek Report No.: 105106865LAX-005

Intertek Project No.: G105106865

Yann Schwarz
ESDEC, Inc.
28357 Industrial Blvd.
Hayward, CA 94545
Email: yann.schwarz@esdec.com

Ph: 510 225-0973

Subject: Project Summary of the Rain Testing per UL 441 on Ecofasten's Sim-Support Roof Attachment



Dear Mr. Yann Schwarz

Intertek was contracted by ESDEC, Inc. to perform testing in general accordance with UL 441 on Ecofasten's Sim-Support Roof Attachment. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at ESDEC's test facility at 28357 Industrial BLVD, Hayward, CA 94545.

This letter report represents the summary of our evaluation of the above referenced product(s).

UL 441, Safety for Gas Vents, Section 27: Rain Test

This letter report does not constitute certification of this product or any opinion or endorsement by this laboratory. If there are any questions regarding the results contained in this report, or any of the other services offered by Intertek, please do not hesitate to contact your dedicated Intertek Project Manager.

Completed by:	Deep Vora	Reviewed by:	Kamerine Kroner
Title:	Senior Project Engineer	Title:	Reviewer
Signature:		Signature	
Date	July 22, 2022	Date:	July 29, 2022

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SUMMARY REPORT

SECTION 1

MATERIAL SOURCE/INSTALLATION

The test specimen was provided by the client. The specimen was installed onto a Spruce-Pine-Fir wood deck. The test deck measured 3' wide by 3' high and was constructed of #2 Spruce Pine Fir nominal 2x4 lumber. One rafter was centered on the deck for bolt attachment. The rafters were attached to the top and bottom plates with 3" long roofing screws. A 3' wide by 3' high sheet of 26ga PBR roof paneling was attached to the deck with #10-14 x 1" tapping screws with an EPDM bonded washer. The PBR panel was positioned such that its flat surface was centered flush with the rafter.

Description/Installation (Sim-Support Roof Attachment by Ecofasten): The test specimen was composed of two EPDM bushings installed into the 1"x 3" x 1.3" aluminum mount. Two 5/16"x4" lag screws with EPDM backed washers were used to secure the specimen into the center rafter through the metal panel. No sealant was used in the test.

Ecofasten Sim-Support Part numbers covered by this test report are as follows:

Part Number	Description
3014012	Sim-Support Mount Al
3016017	Lag Screw SS .313x4" W/BW

SECTION 3

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Jae Hendrickson	ESDEC, Inc.

SECTION 4

TEST RESULTS

The temperature during testing was 23°C (75°F) and the humidity was 45%. The results are tabulated as follows:

Test Specimen #1 (Ecofasten Sim-Support Roof Attachment):

TITLE OF TEST	RESULTS	ALLOWED	NOTE
Water Penetration, Per UL 441 - One hour of water spray	Pass	No leakage	1, 2

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

Note 1: Tested at 2:12 pitch

Note 2: Test results are applicable for roofs having a slope of 2:12 or greater

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SECTION 5
PHOTOGRAPHS



Photo No. 1
Unassembled Test Specimen

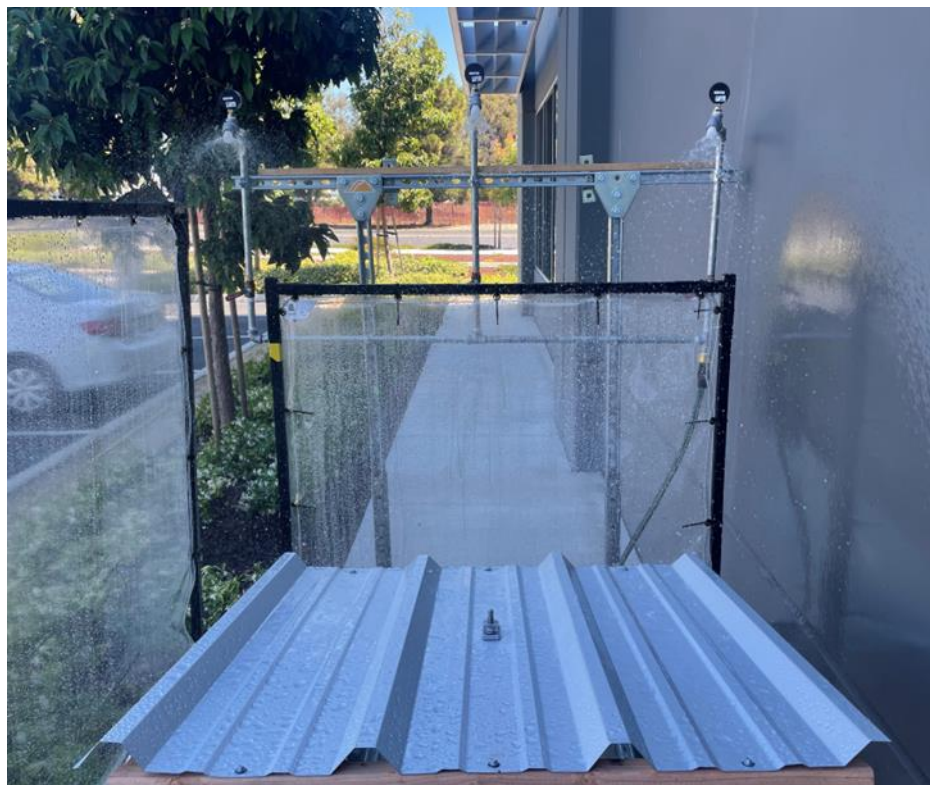


Photo No. 2
Test Specimen Under Test

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Photo No. 3
Test Specimen After Test



Photo No. 4
Underside of Test Desk After Test – no visible water penetration

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SECTION 6 DRAWINGS

The test specimen drawings have been reviewed by Intertek and are representative of the test specimen(s) reported herein. Any deviations are documented herein or on the drawings.

SIM-SUPPORT MOUNT AL

PART NUMBER	DESCRIPTION
3014012	SIM-SUPPORT MOUNT AL

ITEM NO.	DESCRIPTION
1	SIM-SUPPORT SUB-ASSEMBLY
2	3/8 STAINLESS STEEL AND EPDM BONDED SEALING WASHER
3	WASHER, SEALING, 5/16" EPDM BACKED STAINLESS STEEL
4	SS SERRATED FLANGE LOCK NUT, 3/8-16
5	SIMPLE SEAL

1) SIM-SUPPORT SUB-ASSEMBLY

Material	Finish
Aluminum/Stainless Steel	Mill

REV.- CS1

SIM-SUPPORT MOUNT AL

2) 3/8 STAINLESS STEEL AND EPDM BONDED SEALING WASHER

Material	Finish
Stainless Steel/EPDM	Mill

3) WASHER, SEALING, 5/16" EPDM BACKED STAINLESS STEEL

Material	Finish
Stainless Steel/EPDM	Mill

REV.- CS1

SIM-SUPPORT MOUNT AL

4) SS SERRATED FLANGE LOCK NUT, 3/8-16

Material	Finish
Stainless Steel	Mill

5) SIMPLE SEAL

Material	Finish
Rubber	Black

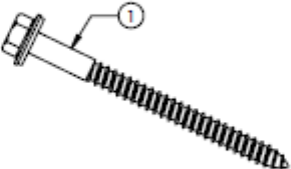
REV.- CS1

Drawing No. 1
Ecofasten Sim-Support Roof Attachment

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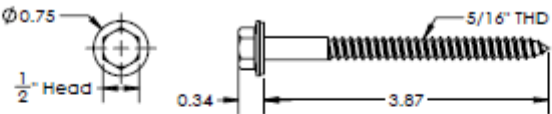
LAG SCREW SS .313X4" W/BW (50)

PART NUMBER	DESCRIPTION
3016017	LAG SCREW SS .313X4" W/BW (50)



ITEM NO.	DESCRIPTION
1	LAG SCREW, 5/16-4", THREAD 3", EPDM BACKED WASHER

1) LAG SCREW, 5/16-4", THREAD 3", EPDM BACKED WASHER



Material	Stainless Steel/EPDM
Finish	Mill

REV.- CS1

**Drawing No. 2
Ecofasten Lag Screw**