

ESDEC, INC. TEST REPORT

SCOPE OF WORK

UL 441 TESTING ON ECOFASTEN'S SIMPLESEAL ROOF ATTACHMENT

REPORT NUMBER

105106865LAX-004

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22-JULY-2022 Intertek Report No.: 105106865LAX-004

Intertek Project No.: G105106865

Yann Schwarz Ph: 510 225-0973

ESDEC, Inc. 28357 Industrial Blvd. Hayward, CA 94545

Email: yann.schwarz@esdec.com

Subject: Project Summary of the Rain Testing per UL 441 on Ecofasten's SimpleSeal Roof

Attachment

Dear Mr. Yann Schwarz

Intertek was contracted by ESDEC, Inc. to perform testing in general accordance with UL 441 on Ecofasten's SimpleSeal 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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SECTION 1

MATERIAL SOURCE/INSTALLATION

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 (SimpleSeal Roof Attachment by Ecofasten): The test specimen was composed of an EPDM bushing installed into an approx. 3"x2"x2" aluminum L-foot. A 5/16" x 4" lag screw with EPDM backed washer was used to secure the specimen to the center rafter through the metal panel. No sealant was used in the test.

Ecofasten SimpleSeal Part numbers covered by this test report are as follows:

Part Number	Description	
3011017	L-Foot SCL-101 MLL 3"	
3016015	SimpleSeal EPDM Bushing	
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 24°C (75°F) and the humidity was 42%. The results are tabulated as follows:

Test Specimen #1 (Ecofasten SimpleSeal Roof Attachment):

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

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





Photo No. 3 Test Specimen After Test



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

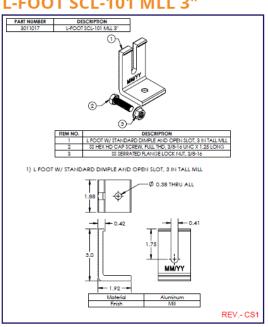


SECTION 6

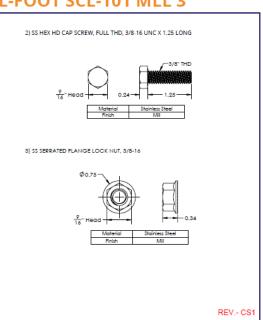
DRAWINGS

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.

L-FOOT SCL-101 MLL 3"

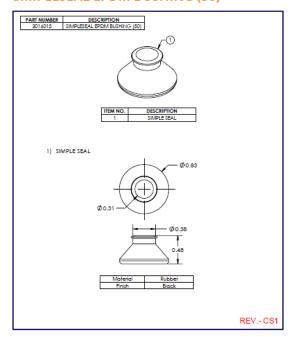


L-FOOT SCL-101 MLL 3"



Drawing No. 1 **Ecofasten SimpleSeal L-Foot**

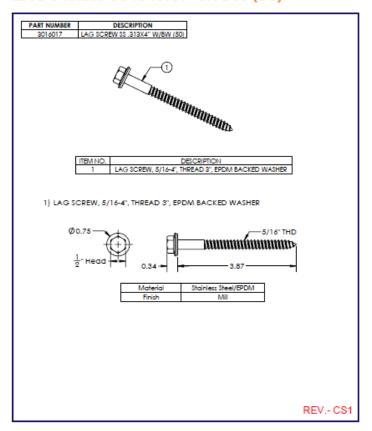
SIMPLESEAL EPDM BUSHING (50)



Drawing No. 2 **Ecofasten SimpleSeal EPDM Bushing**



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



Drawing No. 3
Ecofasten SimpleSeal Lag Screw