

ESDEC, INC. TEST REPORT

SCOPE OF WORK

UL 441 TESTING ON ECOFASTEN'S 44-R ROOF ATTACHMENT

REPORT NUMBER

105106865LAX-001

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SUMMARY REPORT

22-JULY-2022

Intertek Report No.: 105106865LAX-001

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 44-R Roof Attachment



Dear Mr. Yann Schwarz

Intertek was contracted by ESDEC, Inc. to perform testing in general accordance with UL 441 on Ecofasten's 44-R 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. A sheet of nominal 7/16” thick plywood was secured to the studs with #8 x 1-5/8” roofing screws. The test deck was then covered with #15 felt paper and three-tab asphalt shingles.

Description/Installation (44-R Roof Attachment by Ecofasten): The test specimen was composed of a 6” x 6” x 5/16” stainless steel plate with 3/8” stainless steel bolt welded in its center. The mount was secured to the deck with 8 #15 x 2” stainless steel deck screws. A 12” x 14” x 0.03” thick aluminum flashing was secured to the mount between an approx. 3” x 2” x 2” aluminum L-foot. The flashing was installed with an EPDM sealing washer and 3/8” flange nut with EPDM backed washer. A portion of the shingle was cut away to make space for the rise of the deck mount. The flashing was installed without sealant.

Ecofasten 44-R Roof Attachment Part Numbers covered by this test report are as follows:

Part Number	Description
3015014	44-R Flashing Al Blk 12x14”
3015013	44-R base SS 6x6”
3011017	L-Foot SCL-101 MLL 3”
3016010, 3016011, 3016012	Deck Screw SS

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 44-R 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

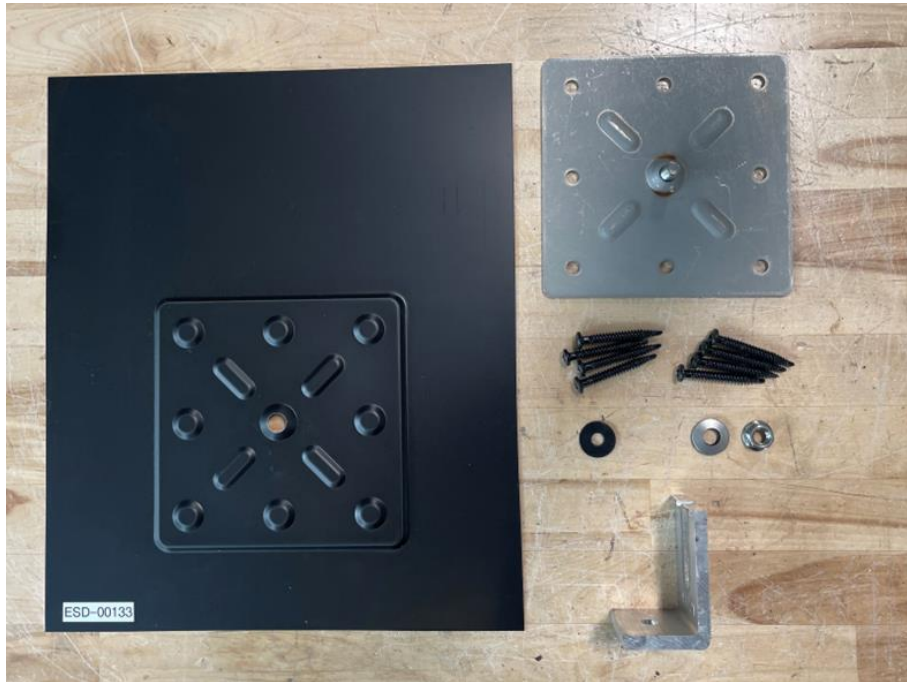


Photo No. 1
Unassembled Test Specimen



Photo No. 2
Test Specimen Under Test

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Photo No. 3
Test Specimen After Test



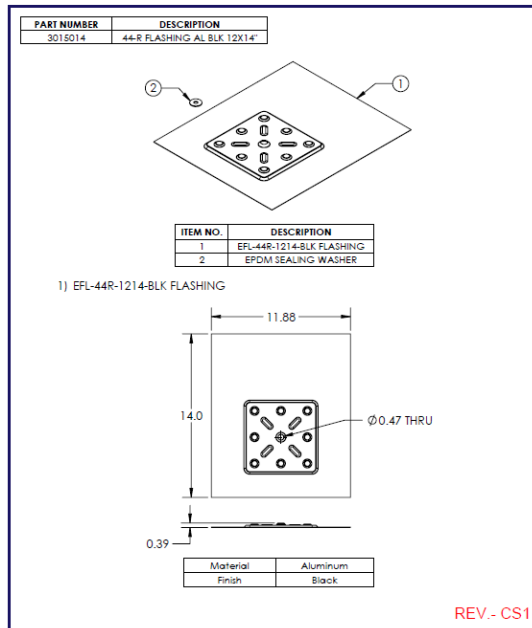
Photo No. 4
Underside of Test Desk After Test – no visible water penetration

SUMMARY REPORT

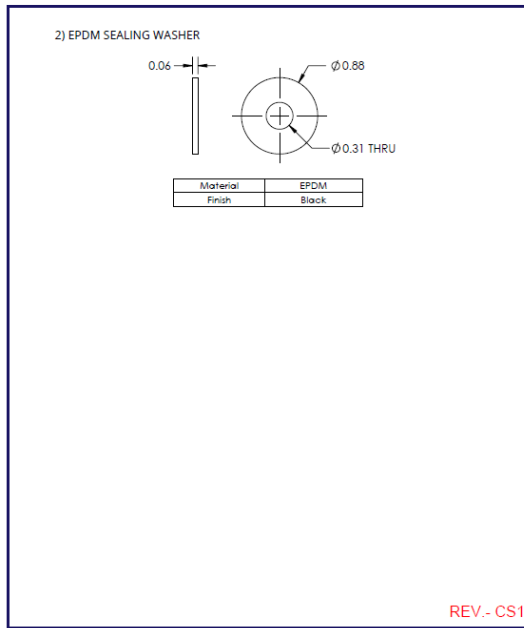
SECTION 6 DRAWINGS

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.

44-R FLASHING AL BLK 12X14"

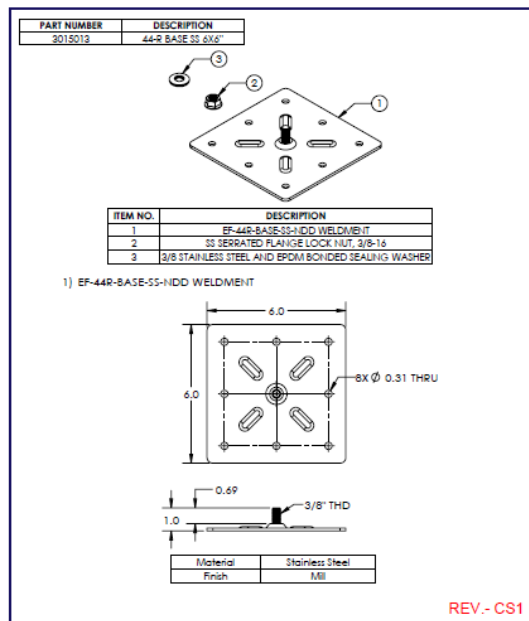


44-R FLASHING AL BLK 12X14"

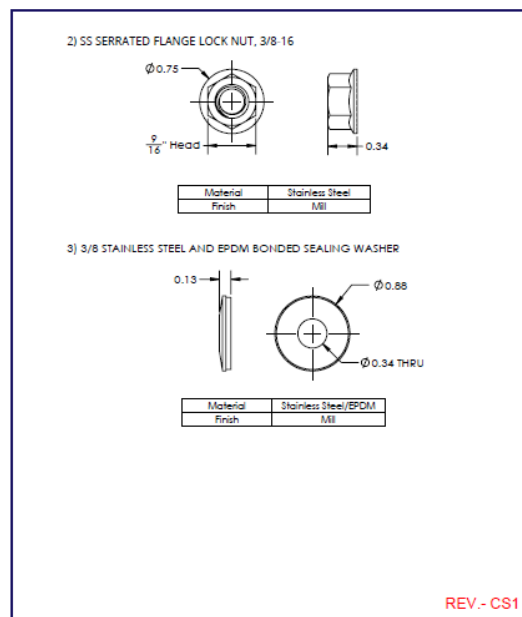


Drawing No. 1
Ecofasten 44-R Flashing

44-R BASE SS 6X6"



44-R BASE SS 6X6"



Drawing No. 2
Ecofasten 44-R Base

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L-FOOT SCL-101 MLL 3"

PART NUMBER	DESCRIPTION
3011017	L-FOOT SCL-101 MLL 3"

ITEM NO.	DESCRIPTION
1	L FOOT W/ STANDARD DIMPLE AND OPEN SLOT, 3 IN TALL MLL
2	SS HEX HD CAP SCREW, FULL THD, 3/8-16 UNC X 1.25 LONG
3	SS SERRATED FLANGE LOCK NUT, 3/8-16

1) L FOOT W/ STANDARD DIMPLE AND OPEN SLOT, 3 IN TALL MLL

Material	Aluminum
Finish	Mill

REV.- CS1

L-FOOT SCL-101 MLL 3"

2) SS HEX HD CAP SCREW, FULL THD, 3/8-16 UNC X 1.25 LONG

Material	Stainless Steel
Finish	Mill

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

Material	Stainless Steel
Finish	Mill

REV.- CS1

Drawing No. 3
Ecofasten L-Foot

DECK SCREW SS

PART NUMBER	DESCRIPTION	LENGTH (L)
3016010	DECK SCREW SS #15X2"	2"
3016011	DECK SCREW SS #15X3"	3"
3016012	DECK SCREW SS #15X4"	4"

ITEM NO.	DESCRIPTION
1	ROOFING SCREW, DRILL POINT, BLACK

1) ROOFING SCREW, DRILL POINT, BLACK

Material	Steel
Finish	Black

REV.- CS1

Drawing No. 4
Ecofasten Deck Screw