

ICC-ES Evaluation Report

ESR-3021

Reissued April 2025


This report also contains:

- [CA Supplement](#)

Subject to renewal April 2026

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| <p>DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION</p> <p>Section: 07 30 05— Roofing Felt and Underlayment</p> | <p>REPORT HOLDER: ISAIAH INDUSTRIES, INC.</p> <p>ADDITIONAL LISTEE: ERIE HOME SOLUTIONS, LLC</p> | <p>EVALUATION SUBJECT: ROOFAQUAGUARD UDLX, ROOFAQUAGUARD UDLX-ECO AND ROOFAQUAGUARD RD ROOF UNDERLAYMENTS</p> |  |
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1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012, 2009 and 2006 [International Building Code® \(IBC\)](#)
- 2021, 2018, 2015, 2012, 2009 and 2006 [International Residential Code® \(IRC\)](#)
- 2013 *Abu Dhabi International Building Code (ADIBC)*[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Physical properties
- Water resistance

2.0 USES

RoofAquaGuard UDLX, RoofAquaGuard UDLX-ECO, and RoofAquaGuard RD (Erie Radiant Barrier Underlayment) are synthetic roofing underlayments for use as an alternative to ASTM D226, Type I and Type II, roofing underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC.

3.0 DESCRIPTION

RoofAquaGuard UDLX, RoofAquaGuard UDLX-ECO, and RoofAquaGuard RD are roofing underlayments comprised of a polypropylene (PP) nonwoven fiber felt cover which is bonded to a PP woven sheet. This PP woven sheet is then bonded to an ethylene-vinyl acetate layer on the bottom side. The underlayment has a nominal 20-mil thickness [0.02 inch (0.5 mm)], weighs 3.74 pounds per 100 square feet (185 g/m²). The RoofAquaGuard UDLX is available in roll sizes up to 60 inches (1.52 m) wide and 200 feet (61 m) long and the RoofAquaGuard UDLX-ECO is available in roll sizes up to 48 inches (1.22 m) wide and 250 feet (76.2 m) long. The RoofAquaGuard RD is available in roll sizes up to 56 inches (1.4 m) wide and 214 feet (65.2 m) long.

4.0 DESIGN AND INSTALLATION

Installation must comply with the requirements of the applicable code, this report and the manufacturer's published installation instructions. The installation instructions must be available at the jobsite at all times during the installation.

Prior to application of the underlayment, the deck surface must be free of frost, dust and dirt, loose nails, and other protrusions. Damaged sheathing must be replaced. The substrate must be clean and dry prior to installation. Minimum roof slope is 2:12 (16.67% slope). The underlayment is laid horizontally (parallel to the eave) with the print side up, and with 4-inch (102 mm) horizontal laps and 6-inch (152 mm) vertical laps. Overlaps must run with the flow of water in shingle fashion. The underlayment is attached to the roof deck with a minimum of No. 12 gage [0.109-inch shank diameter (2.77 mm)] corrosion-resistant steel or stainless steel nails having a minimum $\frac{3}{8}$ -inch-diameter (9.5 mm) head, with minimum 1-inch-diameter (25.4 mm) plastic caps. The fasteners are spaced 12 inches (305 mm) on center vertically and 14 inches (356 mm) on center horizontally, except in areas subject to high winds where underlayment fastening must comply with the high wind attachment requirements for the applicable roof covering in accordance with IBC Section 1507 or IRC Section R905, as applicable. When battens or counterbattens are installed over the underlayment, the underlayment need only be preliminarily attached pending attachment of the battens or counterbattens.

In areas of the roof required to have an ice dam membrane under Chapter 15 of the IBC or Chapter 9 of the IRC, an approved ice dam membrane must be applied over the solid substrate in sufficient courses so that the underlayment extends up from the edge of the eave to a point at least 24 inches (610 mm) inside the exterior wall line. The roofing underlayment, in the field of the roof, overlaps the ice dam membrane.

Installation of an approved roof covering can proceed immediately following application of the roofing underlayment. The underlayment must be covered by the roof covering within the time period set forth in the report holder's published installation instructions. For reroofing applications, the same procedures apply after removal of the existing roof covering and roofing felts to expose the roof deck.

5.0 CONDITIONS OF USE:

The RoofAquaGuard UDLX, RoofAquaGuard UDLX-ECO, and RoofAquaGuard RD Roofing Underlayments described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The underlayment must be installed in accordance with this report, the applicable code and the manufacturer's published installation instructions. In the event of a conflict between this report and the published installation instructions, this report governs.
- 5.2 Installation is limited to use on structures located in areas where nonclassified roof coverings are permitted or as a component of a classified roofing assembly when specifically recognized as such in a listing approved by the code official.
- 5.3 This report recognizes the use of RoofAquaGuard RD as a roof underlayment only. Use of this product as a radiant barrier is outside the scope of this report.
- 5.4 Installation is limited to roofs having a slope of 2:12 (16.67%) or greater.
- 5.5 Installation is limited to use with roof coverings that are mechanically fastened through the underlayment to the sheathing or rafters.
- 5.6 Installation is limited to roofs with ventilated attic spaces in accordance with the requirements of the applicable code.
- 5.7 RoofAquaGuard UDLX, RoofAquaGuard UDLX-ECO, and RoofAquaGuard RD roofing underlayment is manufactured for Isaiah Industries, Inc., under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the [ICC-ES Acceptance Criteria for Roof Underlayments \(AC188\)](#), dated February 2012 (editorially revised June 2020).

7.0 IDENTIFICATION

- 7.1 Each roll of RoofAquaGuard UDLX, RoofAquaGuard UDLX-ECO, and RoofAquaGuard RD Roofing Underlayments are identified by a label bearing the following information: company name (Isaiah Industries, Inc.), manufacturing location, output roll number, and the evaluation report number (ESR-3021).
- 7.2 The report holder's contact information is the following:

ISAIAH INDUSTRIES, INC.
8510 INDUSTRY PARK DRIVE
PIQUA, OHIO 45356
(937) 773-9840
www.isaiahindustries.com

7.3 The additional listee's contact information is the following:

ERIE HOME SOLUTIONS, LLC
3516 GRANITE CIRCLE
TOLEDO, OHIO 43617
(419) 472-4200

www.erieconstruction.com

PRODUCT: ERIE RADIANT BARRIER UNDERLAYMENT

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 30 05—Roofing Felt and Underlayment

REPORT HOLDER:

ISAIAH INDUSTRIES, INC.

EVALUATION SUBJECT:

ROOFAQUAGUARD UDLX, ROOFAQUAGUARD UDLX-ECO AND ROOFAQUAGUARD RD ROOF UNDERLAYMENTS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the RoofAquaGuard UDLX, RoofAquaGuard UDLX-ECO, and RoofAquaGuard RD Roof Underlayments, described in ICC-ES evaluation report ESR-3021, have also been evaluated for compliance with the code(s) noted below.

Applicable code edition(s):

- 2022 *California Building Code* (CBC)

For evaluation of applicable Chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 *California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The RoofAquaGuard UDLX, RoofAquaGuard UDLX-ECO, and RoofAquaGuard RD Roof Underlayments, described in Sections 2.0 through 7.0 of the evaluation report ESR-3021, comply with CBC Chapter 15, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapter 15, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

2.2 CRC:

The RoofAquaGuard UDLX, RoofAquaGuard UDLX-ECO, and RoofAquaGuard RD Roof Underlayments, described in Sections 2.0 through 7.0 of the evaluation report ESR-3021, comply with CRC Chapter 9, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 9, as applicable.

This supplement expires concurrently with the evaluation report, reissued April 2025.