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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER:

ISI Building Products
401 Truck Haven Road
East Peoria, IL 61611
USA
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REPORT SUBJECT:

Ensure Quad-Flex Synthetic Roofing Underlayment

1.0 SCOPE OF EVALUATION

This Research Report addresses compliance with the following Codes:

- 2018, 2015 and 2012 *International Building Code*® (IBC)
- 2018, 2015 and 2012 *International Residential Code*® (IRC)

2.0 USES

Ensure Quad-Flex roofing underlayment is used in the field of the roof as an alternative to the ASTM D226, Type I and II, roof underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC.

The underlayment may be used in areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier roof underlayment, when installed as noted in Section 4.2.

The underlayment may be used as components of classified assemblies when installed as described in this report.

The underlayment has been evaluated for the following properties:

PROPERTY	IBC SECTION ¹	IRC SECTION ¹
Physical Properties	104.11, 1506, and 1507	R104.11, R904, and R905
Fire Classification	1505	R902.1
Ice Barrier	1507	R905

¹ Referenced sections apply to the 2018 IBC and IRC.

3.0 DESCRIPTION

Ensure Quad-Flex is a mechanically attached synthetic underlayment comprised of a polypropylene woven scrim coated on both sides with a polypropylene non-woven scrim on the exposed side. The underlayment is black in color and has an overall weight of 1.74 pounds per 100 square feet. The underlayment is available in rolls of 48 inches wide by 250 feet long.

4.0 INSTALLATION

4.1 General:

Installation of the underlayment must comply with the applicable Code, this report, and the report holder's published installation instructions.

The underlayment must be installed in accordance with the subsections of IBC Section 1507 and IRC Section R905 applicable to the roof covering being installed. The underlayment must be laid with the print side up, with laps as required by the applicable Code, evaluation report, or manufacturer's instructions, whichever is more restrictive. The roof covering may be installed immediately following the underlayment application and the underlayment must be covered within the time designated in the report holder's published installation instructions.

4.2 Ice Barrier:

In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier, two layers of the underlayment solidly cemented together with a low solvent based roofing cement, complying with ASTM D4586 Type 1, may be used provided the ice barrier extends up the roof a minimum distance of 24 inches inside the interior wall line of the building. The underlayment installed in the field of the roof must overlap the ice barrier.



4.3 Fire Classification:

The underlayment may be used as a component of a classified roof assembly when specifically recognized as such in a Listing approved by the Code official. The underlayment may also be used as an alternative to the underlayments specified in the Code for roof coverings permitted under the Exceptions to IBC Section 1505.2 and IRC Section R902.1 and may be used where non-classified roofing is permitted in IBC Section 1505.5.

5.0 CONDITIONS OF USE

The underlayment described in this Research Report comply with, or are suitable alternatives to, what is specified in those Codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.

5.2 Installation is limited to use with approved mechanically attached roof covering systems.

5.3 Installation is limited to roof systems that do not involve hot asphalt or coal-tar-pitch.

5.4 Installation is limited to roofs with a slope of 2:12 (17%) or greater.

5.5 Attic ventilation must be provided in accordance with the applicable Code since there are no requirements to evaluate vapor permeability of the underlayment.

5.6 The underlayment is manufactured under a quality control program with inspections by Intertek Testing Services NA Inc. (AA-647).

6.0 SUPPORTING EVIDENCE

6.1 Reports of tests in accordance with ASTM E108.

6.2 Data in accordance with ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised December 2015).

6.3 Intertek Listing Report "[ISI Ensure Quad-Flex Synthetic Roofing Underlayment](#)".

7.0 IDENTIFICATION

The underlayment is imprinted with the product name, the company name, the Intertek Mark, and the Code Compliance Research Report number (CCRR-1109). Each roll of the product is also labeled with product name, company name, and installation instructions.

8.0 OTHER CODES

This section is not applicable.

9.0 CODE COMPLIANCE RESEARCH REPORT USE

9.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

9.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

9.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

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