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Code Compliance Research Report CCRR-1001

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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER:

LinerLock, Inc.
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REPORT SUBJECT:

LinerLock 140 (LL-140), LinerLock 120 (LL-120),
LinerLock 110 (LL-110), and LinerLock 90 (LL-90)
Roofing Underlayments

1.0 SCOPE OF EVALUATION

This Research Report addresses compliance with the following Codes:

- 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2015, 2012, and 2009 *International Residential Code*® (IRC)

2.0 USES

LL-140, LL-120, LL-110, and LL-90 roofing underlayments are used in the field of the roof as an alternative to the ASTM D226, Type I and Type II, roof underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC.

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

The underlayments have 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

¹Referenced sections apply to 2015, 2012, and 2009 IBC and IRC

3.0 DESCRIPTION

LL-140 is a cross-woven polypropylene roofing underlayment with a polypropylene coating on one side of

the woven scrim. The underlayment has a nominal weight of 2.9 pounds per 100 square feet and is produced in standard rolls measuring 48 inches wide and 250 feet long.

LL-120 is a four-layered roofing underlayment consisting of a non-woven polypropylene scrim bonded to a woven polypropylene scrim and coated on both sides. The underlayment has a nominal weight of 2.25 pounds per 100 square feet and is produced in standard rolls measuring 48 inches wide and 250 feet long.

LL-110 is a cross-woven polypropylene roofing underlayment with proprietary coating on both sides. The underlayment has a nominal weight of 2.2 pounds per 100 square feet and is produced in standard rolls measuring 48 inches wide and 250 feet long.

LL-90 is a four-layered roofing underlayment consisting of a polypropylene woven scrim coated on both sides with a polypropylene non-woven scrim on the exposed side. The underlayment is blue-grey 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 underlayments must comply with the applicable Code, this report, and the report holder's published installation instructions.

The underlayments must be installed in accordance with the subsections of IBC Section 1507 and IRC Section R905 applicable to the roof covering being installed. The underlayments 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:

The LinerLock roofing underlayments have not been evaluated for use as an ice barrier. In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier, a self-adhering polymer modified

bitumen sheet complying with ASTM D1970, or two layers of Code-complying underlayment solidly cemented together, must be used such that the ice barrier extends up the roof a minimum distance of 24 inches inside the interior wall line of the building. The LinerLock underlayments installed in the field of the roof must overlap the ice barrier.

4.3 Fire Classification:

The roof underlayments 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 underlayments 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. Except in buildings permitted to have non-classified roofing, the roof deck must be minimum 15/32 inch thick wood structural panels.

5.0 CONDITIONS OF USE

The underlayments 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 coverings systems.

5.3 Installation is limited to roofing 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 underlayments have not been evaluated for use as ice barriers.

5.7 Installation for fire classification is limited to minimum 15/32 inch thick deck sheathing.

5.8 The underlayments are 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 the ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised December 2015).

6.4 Intertek Listing Report ["LinerLock LL-140, LL-120, LL-110 and LL-90 Roof Underlayments"](#).

7.0 IDENTIFICATION

LL-140, LL-120, LL-110, and LL-90 roofing underlayments are marked at 24 inch intervals with the product name. Each roll of the product is labeled with the report holder's name (Linerlock, Inc.), the product name, the manufacturing date code, and the Code Compliance Research Report number (CCRR-1001).

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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