LISTING INFORMATION OF LinerLock LL-140 and LL-110 Roofing Underlayments

SPEC ID: 29927

LinerLock Inc
1509 E McFadden Avenue

Santa Ana , CA 92705

LinerLock LL-140 (LL-140) is a cross-woven polypropylene roof underlayment with a polypropylene coating on one side of the woven scrim. The underlayment has a nominal weight of 2.9 lbs/100 square foot (142 gsm) and is produced in standard rolls measuring 48 inches (1220 mm) wide and 250 feet (76 m) long.

LinerLock LL-110 (LL-110) is a cross-woven polypropylene roof underlayment with proprietary coating on both sides. The underlayment has a nominal weight of 2.2 lbs/100 square foot (105 gsm) and is produced in standard rolls measuring 48 inches (1220 mm) wide and 250 feet (76 m) long.

RATINGS

Material Properties

LL-110 underlayment meets the requirements of CAN/CSA A220.1.

Fire Classification

LL-140 and LL-110 underlayments received Class A ratings based on the deck configuration shown below in accordance with ASTM E108:

Slope: 5:12, Combustible Deck

- Nominal 15/32” thick AC grade exterior plywood deck.
- A single layer of LL-140 roofing underlayment mechanically fastened to the plywood sheathing using T50 staples at 18” OC intervals; or a single layer of LL-110 roofing underlayment mechanically fastened every 8” OC on the perimeter and 12” OC in the field with ring shank roofing nails with 1” diameter plastic cap.
- Three tab asphalt shingles complying with ASTM D3018, brick, masonry, slate, clay or concrete roof tiles, exposed concrete deck, ferrous or copper shingles or sheets, and metal sheets and shingles coverings per manufacturer’s instructions.

Attribute	Value
CSI Code	07 30 05 Roofing Felt and Underlayment
Roofing: Fire Rating	Class A
Listed or Inspected	LISTED
Report Number	G100944599; G101212144; G101212144; G101237773; G101237797
Criteria	ASTM E108 (2010a)
Criteria	ICC-ES AC207 (2012)
Intertek Services	Certification
Listing Section	ROOFING MATERIALS

DRAWING INDEX

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Intertek Research Report
IRR-1001

Issue Date: 07-01-2013
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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION
Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER:
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REPORT SUBJECT:

LINERLOCK 140 (LL-140) and LINERLOCK 110 (LL-110) ROOF UNDERLAYMENTS

1.0 SCOPE OF EVALUATION

This research report addresses compliance with the following codes:

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

2.0 USES

LL-140 and LL-110 roof 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

[1]Referenced sections apply to 2012 and 2009 IBC and IRC

3.0 DESCRIPTION

LL-140 is a cross-woven polypropylene roof underlayment with a polypropylene coating on one side of the woven scrim. The underlayment has a nominal weight of 2.9 lbs/100 ft^2 (142 g/m^2) and is produced in standard rolls measuring 48 inches (1220 mm) wide and 250 feet (76 m) long. LL-140 underlayment has water vapor transmission of 1.7 perms (outdoor to indoor) when tested in accordance with ASTM E96 (Method B – water method).

LL-110 is a cross-woven polypropylene roof underlayment with proprietary coating on both sides. The underlayment has a nominal weight of 2.2 lbs/100 ft^2 (105 g/m^2) and is produced in standard rolls measuring 48 inches (1220 mm) wide and 250 feet (76 m) long. LL-110 underlayment has water vapor transmission of 0.05 perms (outdoor to indoor) when tested in accordance with ASTM E96 (Method B – water method).

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 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 dry and free of dust, dirt, loose nails and other protrusions. Damaged sheathing must be replaced.

4.2 APPLICATION:

The underlayments must be installed in accordance with Chapter 15 of the IBC and Chapter 9 of the IRC. The underlayments are laid with the print side up, and with 4-inch (102 mm) horizontal and 6-inch (152 mm) vertical laps. Overlaps must run with the flow of water in a shingling fashion. The underlayments must be fastened only as necessary to hold it in place, or as otherwise required for the roof covering, except in areas subject to high winds, where underlayment fastening must comply with high wind attachment requirements specified in IBC Section 1507 and IRC Section R905.

Installation of an approved roof covering can proceed immediately following the underlayment application. The underlayments must be covered by a roof covering within the time set forth in the report holder's published installation instructions. For re-roofing applications, after removal of the old roof covering and roofing felts to expose the roof deck, the same procedures apply as for new construction.

Minimum roof slope is 2:12 (17% slope). For roof slopes from 2:12 (17%) up to but not including 4:12 (33%), where the roof is covered with asphalt shingles, underlayments must be in two layers and must be applied in accordance with Section 1507.2.8 of the IBC or Section R905.2.7 of the IRC. For roof slopes from $2^1/_2$:12 (21%) up to but not including 4:12 (33%), where the roof is covered with clay or concrete tiles, underlayments must be in two layers applied in accordance with Section 1507.3.3.1 of the IBC or Section R905.3.3.1 of the IRC. For slopes of 4:12 (33%) or greater, underlayments must be a minimum of one layer and applied shingle fashion.

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4.3 ICE BARRIER:

In areas of the roof required to have an ice barrier under Section 1507 of the IBC or Section R905 of the IRC, a self-adhering polymer modified bitumen sheet complying with ASTM D1970, or two layers of code-complying underlayment, solidly cemented together, must be applied over the solid substrate in sufficient courses such that the underlayment extends up the roof a minimum distance of 24 inches (610 mm) inside the interior wall line of the building. The LL-140 and LL-110 underlayments in the field of the roof must overlap the ice barrier.

4.4 FIRE CLASSIFICATION:

LL-140 and LL-110 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 of brick, masonry, slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets, and metal sheets and shingles.

5.0 CONDITIONS OF USE

The LL-140 and LL-110 roof underlayments described in this 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 even 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 no 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 Installation is limited to roofs with ventilated attic spaces in accordance with the requirements of the applicable code.

5.6 The LL-140 and LL-110 underlayments have not been evaluated for use as ice barriers.

5.7 The LL-140 and LL-110 underlayments are manufactured under a quality control program with inspections by Intertek Testing Services NA Ltd. (AA-690).

5.8 The approval of building products is the responsibility of the Authority Having Jurisdiction.

5.9 Intertek Research Reports shall not be used in any manner that implies an endorsement of the product, material or system by Intertek.

5.10 The current status of any Intertek Research Report can be verified on the Intertek Directory of Certified Products (https://whdirectory.intertek.com)

6.0 SUPPORTING EVIDENCE

6.1 Reports of tests in accordance with ASTM E108.

6.2 Data in accordance with ICC-ES Acceptance Criteria of Polypropylene Roof Underlayments (AC207), dated February 2012.

6.3 Intertek Warnock Hersey Listing Report "Linerlock LL-140 and LL-110 Roof Underlayments" on http://whdirectory.intertek.com.

7.0 IDENTIFICATION

LL-140 and LL-110 roofing underlayments are marked at 24-inch (0.61 m) 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 Intertek Research Report number (IRR-1001).