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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION
Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER:
Ark Synthetics Inc.
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Canada
<https://arksynthetics.com>

REPORT SUBJECT:
Arcno and Arcno Pro Synthetic Roofing Underlayments

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, and 2018 *International Building Code*® (IBC)
- 2024, 2021, and 2018 *International Residential Code*® (IRC)

NOTE: This report references the most recent Code editions noted. Section numbers in earlier editions may differ.

1.2 Arcno and Arcno Pro Underlayments have been evaluated for the following properties (see Table 1):

- Physical properties
- Ice barrier

1.3 Arcno and Arcno Pro Underlayments have been evaluated for the following uses (see Table 1):

- Under the 2024 IBC and IRC, the underlayments may be used in the field of roofs where ASTM D8257 compliant underlayments are required as specified in IBC Chapter 15 and IRC Chapter 9.
- Under the 2021 and 2018 Codes, the underlayments may be used as an alternative to the ASTM D226, Type I and Type II, roofing underlayments specified in IBC Chapter 15 and IRC Chapter 9.
- In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier as described in Section 4.2 of this report.

- Use is limited to buildings permitted to have non-classified roofing in accordance with IBC Section 1505.5.

2.0 DESCRIPTION

Arcno is a mechanically-attached synthetic roofing underlayment consisting of a non-woven polypropylene layer on the exposed side, a lamination layer, a polyethylene scrim applied with a coating layer on the sheathing side. It has a nominal weight of 2.25 lbs/100 sq.ft. The underlayment is available in rolls of 48 in. wide by 250 ft. long and is black colour.

Arcno Pro is a mechanically-attached synthetic roofing underlayment consisting of a non-woven polypropylene layer on the exposed side, a lamination layer, a polypropylene scrim applied with a coating layer on the sheathing side. It has a nominal weight of 2.79 lbs/100 sq.ft. The underlayment is available in rolls of 48 in. wide by 250 ft. long and is black colour.

3.0 PERFORMANCE CHARACTERISTICS

3.1 Ice Barrier: In areas of the roof required by IBC Section 1507.1.2 or IRC Section R905.1.2 to have an ice barrier, two layers of the roofing underlayment solidly cemented together may be used provided the ice barrier extends up the roof a minimum distance of 24 inches inside the exterior wall line of the building.

3.2 Vapor Permeability: Arcno and Arcno Pro Underlayments have a permeance of 0.03 perms, based on testing in accordance with ASTM E96.

4.0 INSTALLATION

4.1 General: Arcno and Arcno Pro Underlayments must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.



The underlayments may be installed with the roof coverings specified in IBC Table 1507.1.1(1) and IRC Table R905.1.1(1), where ASTM D8257-compliant underlayments are permitted. The underlayments must be installed in accordance with IBC Table 1507.1.1(2) and IRC Table R905.1.1(2), and fastened in accordance with IBC Table 1507.1.1(3) and IRC Table R905.1.1(3). 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 company name's published installation instructions.

5.0 CONDITIONS OF USE

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, this report governs.

5.2 Installation of underlayment with adhered roofing systems is outside the scope of this report.

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

5.4 Attic ventilation must be provided in accordance with the applicable Code.

5.5 The underlayments are limited to buildings permitted to have non-classified roofing in accordance with IBC Section 1505.5, unless the underlayment is specifically recognized as a component of a classified roofing assembly in a listing approved by the Code official.

5.6 Arcno and Arcno Pro Underlayments are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

6.0 SUPPORTING EVIDENCE

6.1 Reports of tests in accordance with ASTM D8257.

6.2 For 2021 and older Codes, data in accordance with ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised December 2015).

6.3 Intertek Listing Report Ark Synthetics Inc. - Arcno and Arcno Pro Mechanically-Attached Synthetic Roofing Underlayments", on the [Intertek Directory of Building Products](#).

7.0 IDENTIFICATION

Arcno and Arcno Pro Synthetic Roofing Underlayments are identified with the manufacturer's name (Ark Synthetics Inc.), the product name (Arcno and Arcno Pro), the Intertek Mark as shown below, the Intertek Control Number and the Code Compliance Research Report number (CCRR-0605).



8.0 CODE COMPLIANCE RESEARCH REPORT USE

8.1 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.

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

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





TABLE 1 – PROPERTIES EVALUATED

PROPERTY	APPLICABLE CODE SECTIONS ¹	
	2024 IBC	2024 IRC
Physical Properties	1507	R905
Ice Barrier	1507.1.2	R905.1.2

¹Section numbers pertain to the most recent edition cited in Section 1.1 of this Report

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