

LEDGERSHIELD, LLC TEST REPORT

SCOPE OF WORK

AAMA 711 AND ASTM D1970 WATER PENETRATION AROUND FASTENERS EVALUATION OF LEDGERSHIELD FLASHING

REPORT NUMBER

S4139.01-106-31 R0

TEST DATES

03/20/25 - 03/28/25

ISSUE DATE

04/14/25

RECORD RETENTION END DATE

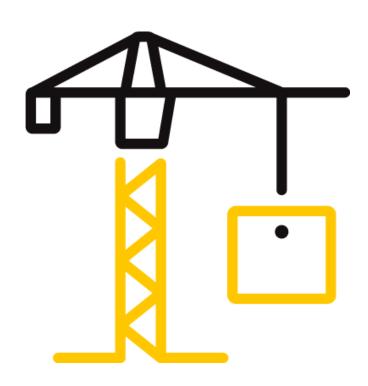
03/28/29

PAGES

14

DOCUMENT CONTROL NUMBER

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TEST REPORT FOR LEDGERSHIELD, LLC

Report No.: S4139.01-106-31 R0

Date: 04/14/25

REPORT ISSUED TO

DAVID PAUL LEDGERSHIELD, LLC 1 Argall Street Bridgeville, Delaware 19933

SECTION 1

SCOPE

Product: Ledgershield Flashing

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Ledgershield, LLC to evaluate Ledgershield Flashing in accordance with AAMA 711 and ASTM D1970 for water penetration around fasteners. Results obtained are tested values and were secured by using the designated test methods. Testing was conducted at the Intertek B&C test facility in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY: Cag S. Saylor **REVIEWED BY:** Dawn M. Chaney TITLE: Technician III TITLE: **Laboratory Supervisor** Materials Laboratory **Materials Laboratory SIGNATURE: SIGNATURE:** DATE: 04/14/25 04/14/25 DATE:

CSS:dmc/kae

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SECTION 2

TEST METHODS

The specimens were evaluated in accordance with the following:

AAMA 711-22, Specification for Self-Adhering Flashing Used for Installation of Exterior Wall Fenestration Products, Section 5.2.1 Water Penetration Resistance Around Fasteners

ASTM D1970/D1970M-21, Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection, Section 7.9 Capability to Seal Around Nail (Head of Water Test)

The specimens were evaluated in accordance with the following as modified by ASTM D1970/D1970M-20, Section 7.9:

ASTM D7349/D7349M-15 (Reapproved 2024), Standard Test Method for Determining the Capability of Roofing and Waterproofing Materials to Seal Around Fasteners, Protocol 4

SECTION 3

MATERIAL SOURCE

The materials were provided by Ledgershield, LLC. The following was received in good condition on 2/26/25:

• (4) Pieces of Ledgershield measuring 8' x 17-3/8"

Refer to the product description photo in Section 9. The materials were tested as received, except for preparing test specimens from the original materials. Representative materials/test specimens will be retained by Intertek B&C for a minimum of four years from the test completion date.

SECTION 4

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY	
Cag S. Saylor	Intertek B&C	
Dawn M. Chaney	Intertek B&C	

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SECTION 5

TEST PROCEDURES

All conditioning of test specimens and test conditions were at standard laboratory conditions, unless otherwise reported. Refer to the test related photos in Section 9. Calibration certificates are available upon request.

AAMA 711 Section 5.2.1, Water Penetration Resistance Around Fasteners

Each specimen consisted of a piece of Ledgershield flashing placed on top of to 1/2 in. thick plywood (PS-1 Exposure 1) with one set of two of the listed fasteners driven through 3 mm thick vinyl shims with a 5 mm x 10 mm slot cut out, flashing and plywood until they were flush with the shim. The bumpy side of the Ledgershield touched the plywood. A piece of PVC pipe was sealed to the top of each specimen with sealant and allowed to cure at standard laboratory conditions for 72 hours. After the sealant cured, the pipes were filled with red dyed deionized water to a depth of 30.5 mm. Each specimen was placed on a water collection container and placed in an Espec environmental chamber (ICN: 63435) set to 4°C for 24 hours and then observed for water penetration.

ASTM D1970 Section 7.9, Capability to Seal Around Nail (Head of Water Test)

Testing was performed in accordance with ASTM D7349, Protocol 4 as modified by ASTM D1970, Section 7.9. Each specimen consisted of a piece of Ledgershield flashing placed on top of a piece of 15/32 in. thick APA Rated Sheathing, 32/16, Exposure 1 plywood. One set of two of the listed fasteners were driven through and flush with a 3 inch square piece of asphalt shingle that was centered on top of the membrane and the plywood. A piece of PVC pipe was sealed onto the assembly and allowed to cure for at least 24 hours. The setup was filled with 5 in. of deionized water. The specimens were placed on a water collection container in an Espec environmental chamber (ICN: 63435) set at $4 \pm 2^{\circ}$ C (39.2 $\pm 3.6^{\circ}$ F) for 72 hours and then observed for water penetration.

SECTION 6

TEST SPECIMEN DESCRIPTIONS

TEST PROCEDURE	NUMBER OF SPECIMENS	NOMINAL SPECIMEN DIMENSIONS
AAMA 711	15	6" x 6"
ASTM D1790	6	10" x 10"

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SECTION 7

TEST RESULTS

AAMA 711 Section 5.2.1, Water Penetration Resistance Around Fasteners

2" Galvanized Roofing Nail and 2" Zinc Plated #8 Pan Head Wood Screw

SPECIMEN ID	OBSERVATIONS	
1	No water leakage observed	
2	No water leakage observed	
3	No water leakage observed	
4	No water leakage observed	
5	No water leakage observed	

1.25 in. long ASTM F1667°NLRFSS-53Z Roofing nails

SPECIMEN ID	OBSERVATIONS	
1	No water leakage observed	
2	No water leakage observed	
3	No water leakage observed	
4	No water leakage observed	
5	No water leakage observed	

5" LedgerLOK Flat Head Structural Wood Screw

SPECIMEN ID	OBSERVATIONS	
1	No water leakage observed	
2	No water leakage observed	
3	No water leakage observed	
4	No water leakage observed	
5	No water leakage observed	

ASTM D1970 Section 7.9, Capability to Seal Around Nail (Head of Water Test)

2" Galvanized Roofing Nail and 2" Zinc Plated #8 Pan Head Wood Screw

SPECIMEN ID	OBSERVATIONS	
1	No water leakage observed	
2	No water leakage observed	

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1.25 in. long ASTM F1667°NLRFSS-53Z Roofing nails

SPECIMEN ID	OBSERVATIONS	
1	No water leakage observed	
2	No water leakage observed	

5" LedgerLOK Flat Head Structural Wood Screw

SPECIMEN ID	OBSERVATIONS	
1	No water leakage observed	
2	No water leakage observed	

SECTION 8

CONCLUSION

The Ledgershield met the specified performance requirements listed in AAMA 711 and ASTM D1970 for the testing performed in this report.

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SECTION 9

PHOTOGRAPHS



Photo No. 1 Material as Received

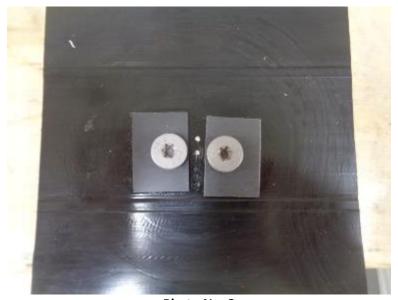


Photo No. 2 Specimen Preparation



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Photo No. 3
Specimen Preparation

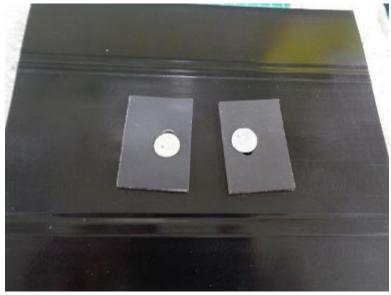


Photo No. 4
Specimen Preparation



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Photo No. 5 Specimen Preparation



Photo No. 6 Specimen Preparation



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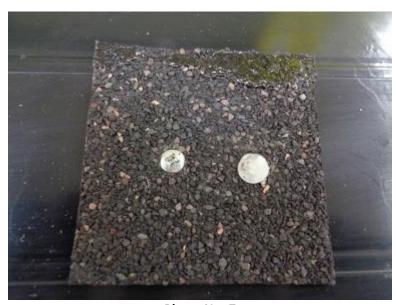


Photo No. 7 Specimen Preparation



Photo No. 8
Specimen Preparation



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Photo No. 9 Specimen Preparation

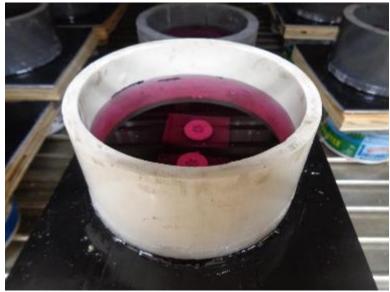


Photo No. 10
AAMA 711 Specimens in Chamber



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Photo No. 11
ASTM D1970 Specimens in Chamber



Photo No. 12
AAMA 711 Specimen at Test End



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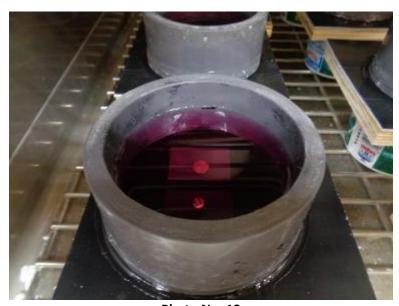


Photo No. 13
AAMA 711 Specimen at Test End



Photo No. 14
ASTM D1970 Specimen at Test End



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SECTION 10

REVISION LOG

REVISION #	DATE	PAGES	REVISION
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