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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 25 00 – Water-Resistive Barriers

Section 07 27 00 – Air Barriers

Section: 07 65 00 – Flexible Flashing

REPORT HOLDER:

Master Builders Solutions Construction Systems US LLC

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REPORT SUBJECT:

MasterSeal® AWB 900

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021, 2018, 2015 *International Building Code*® (IBC)
- 2021, 2018, 2015 *International Residential Code*® (IRC)
- 2021, 2018, 2015 *International Energy Conservation Code*® (IECC)

NOTE: This report references the most recent Code editions. Section number in earlier editions of the Codes may differ.

1.2 *MasterSeal® AWB900* has been evaluated for the following properties (see Table 1):

- Physical Properties
- Water-Resistance
- Air Barrier
- Surface Burning Characteristics
- Noncombustibility

1.3 *MasterSeal® AWB900* has been evaluated for the following uses (see Table 1):

- Flashing in accordance with IRC Section R703.4 and as an alternative to IBC Section 1404.4;

- Joint treatment for use with substrates identified in Section 5.2 that are used as alternatives to the water-resistive barrier requirements of IBC Section 1403.2 and IRC Section R703.2;
- Joint treatment for use with substrates identified in Section 5.2 that are used as an alternative to the water-resistive barrier required in the Exception to IBC Section 2510.6 and IRC Section R703.7.3;
- Joint treatment for use with substrates identified in Section 5.2 that are used as air barrier materials complying with IECC Section C402.5.1.3 and air barrier assemblies complying with IECC Section C402.5.1.4; and that are used to meet the air leakage requirements of IECC Section R402.4 and IRC Section N1102.4;
- Sealant for fastener heads or other small penetration of exterior walls;
- Joint treatment and flashing for fenestration in fire-resistance-rated construction;
- Joint treatment and flashing for fenestration in Types I, II, III, IV and V construction as permitted in IBC Section 1402.5.

2.0 STATEMENT OF COMPLIANCE

MasterSeal® AWB900 complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 *MasterSeal® AWB900* is a liquid-applied elastomeric material. The material is dark grey in color and packaged in 20 oz propack. *MasterSeal® AWB900* has a shelf life of 1 year when stored in cool, dry conditions away from heat and sunlight.

4.0 PERFORMANCE CHARACTERISTICS

4.1 The flashing material has a flame spread index of 25 or less and smoke-developed index of 450 or less when tested



at a maximum thickness of 30 mils in accordance with ASTM E84.

4.2 The flashing material has an air permeance not exceeding 0.02 L/s·m² at 75 Pa when tested in accordance with ASTM E2178.

4.3 The flashing system described in Section 3 has an air leakage not exceeding 0.2 L/s·m² at 75 Pa when tested in accordance with ASTM E2357.

4.4 *MasterSeal® AWB900* has a water vapor transmission of 19.8 perms at 12 mils and 7.19 perms at 30 mils when tested in accordance with ASTM E96, water method.

5.0 INSTALLATION

5.1 General:

MasterSeal® AWB900 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 and are located at:

<https://mbcc.sika.com/en-us/products/air-barriers/masterseal-awb-900-liquid-flashing-membrane>
[\[mbcc.sika.com\]](https://mbcc.sika.com)

5.2 Apply *MasterSeal® AWB900* to clean surfaces free of frost, debris, contamination and materials that may inhibit bonding. *MasterSeal® AWB900* can be applied to damp substrates that are free from ponding water. Substrate shall be structurally sound and free of voids or protrusions that will affect application.

5.3 *MasterSeal® AWB900* typically skins in 25 to 40 minutes and cures in 4-6 hours at 75°F and 50% relative humidity. Differing environmental conditions will alter skinning and curing times.

5.4 *MasterSeal® AWB900* may be applied to frost-free, dry substrates above 25°F with curing initiation above 32°F.

5.5 *MasterSeal® AWB900* may not be used to bridge gaps greater than 1/2 inch.

5.6 *MasterSeal® AWB900* is recognized in this report for use with the following substrates:

5.6.1 Master Builders Solutions *MasterSeal® AWB660* Air and Water Resistive Barriers and Flexible Flashing (ESR-3209).

5.6.2 Georgia-Pacific DensElement™ Barrier System Panels (ESR-3786).

5.6.3 Gypsum board in accordance with ASTM C1177.

5.6.4 Plywood, OSB, Anodized Aluminum, PVC, Galvanized Steel, Cement Masonry Units, concrete and mortar.

5.7 *MasterSeal® AWB900* is recognized in this report as for use as flashing for exterior wall openings:

5.7.1 Apply to rough openings by applying a bead of *MasterSeal® AWB900* in each corner of the rough opening ensuring that corners are fully sealed. Where wood bucks are used, apply a bead of *MasterSeal® AWB900* into gaps between bucks and between the buck and building structure.

5.7.2 Apply additional *MasterSeal® AWB900* in a zigzag pattern onto head, sill, jambs, and exterior substrate. Spread *MasterSeal® AWB900* evenly across the rough opening to create a uniform, void-free, and continuous membrane of 12-20 mil thickness.

5.7.3 *MasterSeal® AWB900* must extend a minimum of 4 inches onto the exterior wall maintaining the 12 to 20 mil thickness.

5.7.4 Allow *MasterSeal® AWB900* to skin prior to application of fluid-applied air/water-resistive barrier to sheathing. Lap the air/water-resistive barrier a minimum of 2 inches onto *MasterSeal® AWB900* to create a continuous air/water-resistive barrier membrane.

5.7.5 Allow *MasterSeal® AWB900* to fully cure prior to the installation of windows, doors, and other wall assemblies.





5.8 Joint Treatment:

5.8.1 Apply a thick bead of *MasterSeal® AWB900* to sheathing joints and spread evenly to a minimum of 1 inch beyond the joint on either side. Apply 20 mils of *MasterSeal® AWB900* across the sheathing joint.

5.8.2 Spot fastener heads with *MasterSeal® AWB900* or Master Builders Solutions fluid-applied air/water-resistive barrier.

5.8.3 Allow *MasterSeal® AWB900* to skin prior to applying fluid-applied air/water-resistive barrier to sheathing.

5.9 Inside and Outside Corners:

5.9.1 Apply a bead of *MasterSeal® AWB900* vertically into the joint. Apply additional *MasterSeal® AWB900* in a zigzag pattern onto the joint. Spread *MasterSeal® AWB900* evenly a minimum of 1 inch beyond the joint on either side to form a uniform, continuous and void-free membrane.

5.9.2 Allow *MasterSeal® AWB900* to skin prior to application of fluid-applied air/water-resistive barrier to sheathing. Lap the air/water-resistive barrier a minimum of 1 inch onto *MasterSeal® AWB900* to create a continuous air/water-resistive barrier membrane.

6.0 CONDITIONS OF USE

6.1 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.

6.2 Under the IBC, where flashings are used with fenestration products, they are permitted to be used on buildings of all construction types.

6.3 *MasterSeal® AWB900 Fastening* is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Manufacturer installation instructions.

7.2 Reports of testing in accordance with the performance requirements of ICC-ES AC148, Acceptance Criteria for Flexible Flashing Materials, revised September 2017.

7.3 Reports of testing in accordance with the performance requirements of ICC-ES AC212, Acceptance Criteria for Water-Resistive Coating Used as Water-Resistive Barriers over Exterior Sheathing, revised February 2015.

7.4 Reports of testing and compliance in accordance with AAMA 714-20, and ASTM E84, E96, E2178, E2357 and E119.

7.5 Priest & Associates Consulting, LLC report of compliance to NFPA 285.

8.0 IDENTIFICATION

MasterSeal® AWB900 is identified with the manufacturer's name (Master Builders Solutions Construction Systems US LLC), address and telephone number, the product name (*MasterSeal® AWB900*), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0264).



9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 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.

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

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





TABLE 1 – PROPERTIES AND USES EVALUATED

| PROPERTY OR USE | 2021 IBC SECTION | 2021 IRC SECTION | 2021 IECC SECTION |
|-------------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| Water-Resistive Barrier | 1403.2 1407.4.1.1 2510.6 | R703.2 R703.7.3 R703.9.2 | -- |
| Air Barrier | -- | N1102.4 | C402.5.1.3 C402.5.1.4 R402.4.1 |
| Liquid Applied Flashing | 1404.4 | R703.4 | -- |
| Surface Burning | 1402.5 | -- | -- |
| Fire Resistance | 1402.4 | R302 | -- |
| Type I, II, III, IV, V Construction | 1402.5 | -- | -- |

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