

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

BASF Corporation
889 Valley Park Drive
Shakopee, MN 55379
(800) 243-6739

www.master-builders-solutions.basf.us

REPORT SUBJECT:

MasterSeal® AWB 900

1.0 SCOPE OF EVALUATION

1.1. This research report addresses compliance with the following Codes:

- 2015 International Building Code® (IBC)
- 2015 International Residential Code® (IRC)
- 2015 International Energy Conservation Code® (IECC)

1.2. *MasterSeal® AWB 900* has been evaluated for the following properties (see Table 1):

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

1.3. *MasterSeal® AWB 900* has been evaluated for the following uses (see Table 1):

1.3.1. Flashing in accordance with IRC Section R703.4 and as an alternative to IBC Section 1405.4;

1.3.2. 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 1404.2 and IRC Section R703.2;

1.3.3. 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;

1.3.4. Joint treatment for use with substrates identified in Section 5.2 that are used as air barrier materials complying with IECC Section C402.5.1.2.1 and air barrier assemblies complying with IECC Section C402.5.1.2.2; and that are used to meet the air leakage requirements of IECC Section R402.4 and IRC Section N1102.4;

1.3.5. Sealant for fastener heads or other small penetration of exterior walls;

1.3.6. Joint treatment and flashing for fenestration in fire-resistance-rated construction;

1.3.7. Joint treatment and flashing for fenestration in Types I, II, III, IV and V construction as permitted in IBC Section 1403.5.

2.0 STATEMENT OF COMPLIANCE

2.1. *MasterSeal® AWB 900* 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.

3.0 DESCRIPTION

3.1. *MasterSeal® AWB 900* is a liquid-applied elastomeric material. The material is dark grey in color and packaged in 20 oz propack. *MasterSeal® AWB 900* 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® AWB 900* 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

MasterSeal® AWB 900 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://www.master-builders-solutions.basf.us/en-us/products/masterseal/4704>

5.1. General

5.1.1. Apply *MasterSeal® AWB 900* to clean surfaces free of frost, debris, contamination and materials that may inhibit bonding. *MasterSeal® AWB 900* 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.

5.1.2. *MasterSeal® AWB 900* 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.

5.1.3. *MasterSeal® AWB 900* may be applied to frost-free, dry substrates above 25°F with curing initiation above 32°F.

5.1.4. *MasterSeal® AWB 900* may not be used to bridge gaps greater than 1/2 inch.

5.2. *MasterSeal® AWB 900* is recognized in this report for use with the following substrates:

5.2.1. BASF *MasterSeal® AWB 660*, Air and Water-Resistive Barriers and Flexible Flashing (ESR-3209).

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

5.2.3. Gypsum board in accordance with ASTM C1177.

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

5.3. *MasterSeal® AWB 900* is recognized in this report as for use as flashing for exterior wall openings:

5.3.1. Apply to rough openings by applying a bead of *MasterSeal® AWB 900* in each corner of the rough opening ensuring that corners are fully sealed. Where wood bucks are used, apply a bead of *MasterSeal® AWB 900* into gaps between bucks and between the buck and building structure.

5.3.2. Apply additional *MasterSeal® AWB 900* in a zigzag pattern onto head, sill, jambs, and exterior substrate. Spread *MasterSeal® AWB 900* evenly across the rough opening to create a uniform, void-free, and continuous membrane of 12-20 mil thickness.

5.3.3. *MasterSeal® AWB 900* must extend a minimum of 4 inches onto the exterior wall maintaining the 12 to 20 mil thickness.

5.3.4. Allow *MasterSeal® AWB 900* 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® AWB 900* to create a continuous air/water-resistive barrier membrane.

5.3.5. Allow *MasterSeal® AWB 900* to fully cure prior to the installation of windows, doors, and other wall assemblies

5.4. Joint Treatment:

5.4.1. Apply a thick bead of *MasterSeal® AWB 900* to sheathing joints and spread evenly to a minimum of 1 inch beyond the joint on either side. Apply 20 mils of *MasterSeal® AWB 900* across the sheathing joint.

5.4.2. Spot fastener heads with *MasterSeal® AWB 900* or BASF fluid-applied air/water-resistive barrier.

5.4.3. Allow *MasterSeal® AWB 900* to skin prior to applying fluid-applied air/water-resistive barrier to sheathing.





5.5. Inside and Outside Corners:

5.5.1. Apply a bead of *MasterSeal® AWB 900* vertically into the joint. Apply additional *MasterSeal® AWB 900* in a zigzag pattern onto the joint. Spread *MasterSeal® AWB 900* evenly a minimum of 1 inch beyond the joint on either side to form a uniform, continuous and void-free membrane.

5.5.2. Allow *MasterSeal® AWB 900* 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® AWB 900* 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® AWB 900* is manufactured by BASF Corporation in Brighton, Colorado under a quality control program with inspections by Intertek (AA-676).

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 April 2015.

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 714-15, and ASTM E84, E96, E2178, E2357 and E119.

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

8.0 IDENTIFICATION

MasterSeal® AWB 900 is identified on the product containers with the manufacturer's name (BASF Corporation), address and telephone number, the product name (*MasterSeal® AWB 900*) 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 Intertek website address: whdirectory.intertek.com is recommended to ascertain the current version and status of this report.

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TABLE 1 – PROPERTIES AND USES EVALUATED

| PROPERTY OR USE | IBC SECTION | IRC SECTION | IECC SECTION |
|--|--------------------------------|--------------------------------|--|
| Water-Resistive Barrier | 1404.2 1408.4.1.1 2510.6 | R703.2 R703.7.3 R703.9.2 | -- |
| Air Barrier | -- | N1102.4 | C402.5.1.2.1 C402.5.1.2.2 R402.4.1 |
| Liquid Applied Flashing | 1405.4 | R703.4 | -- |
| Surface Burning | 1403.5 | -- | -- |
| Fire Resistance | 1403.4 | R302 | -- |
| Type I, II, III, IV, V Construction | 1403.5 | -- | -- |