## Technical Data Guide



7 07 27 26 Fluid-Applied Membrane Air Barriers

# MasterSeal® AWB 900

## Liquid Flashing Membrane

#### **PACKAGING**

MASTERSEAL® AWB 900

- 20 oz. propack
- 20 propacks per case

#### **ACCESSORIES**

MasterSeal® AWB 971 FIB:

- 4": 4" x 180 ft (101.5 mm x 54.8 m) roll
- 6": 6" x 180 ft (152.4 mm x 54.8 m) roll
- 9": 9" x 180 ft (228.5 mm x 54.8 m) roll
- 56 MasterSeal® AWB 975 FIB pieces per dispenser box

MasterSeal® AWB 970 FIB 4: 4" x 100' (10.2 cm x 30.5 m) rolls - 9 rolls per carton MasterSeal® AWB 970 FIB 9: 9"x 100' (22.9 cm x 30.5 m) rolls - 4 per carton MasterSeal® AWB 950 P 19 liter (5 gallon) pails, 3.8 liter (1 gallon) bottles with 4 bottles per carton

MasterSeal® AWB 960 AC 0.95L (1 quart) plastic bottles with 8 bottles per carton MasterSeal® AWB 900 20 oz. propak with 20 propaks per carton

#### SHELF LIFE

MasterSeal® AWB 900 has a 1 year shelf life when properly stored

## STORAGE

Store in original, unopened containers in a cool, dry place away from sources of heat and direct sunlight at a minimum of 40 °F. In cold weather, keep containers at room temperature for at least 24 hours before using. Storage at elevated temperatures will reduce shelf life.

## VOC CONTENT

30 g/l, or 0.25 lbs/gal less water and exempt solvents per ASTM D2369 (based in part on EPA method 24).

## **SOLIDS**

99%

## COLOR

Dark Grey

### **DESCRIPTION**

MasterSeal® AWB 900 is a one-component elastomeric material for use as a flexible waterproofing flashing membrane for rough openings. It can also be used to prepare sheathing joints for subsequent application of Master Builders Solutions air/water resistive barrier membranes.

#### **USES**

MasterSeal® AWB 900 can be used as a membrane for flashing rough openings, small penetrations and as a detailing compound for preparing sheathing joints for application of an air/ water-resistive barrier membrane. Acceptable substrates include poured concrete/ unit masonry, ASTM C1177 sheathings including DensGlassTM exterior sheathing, DensElementTM, eXPTM sheathing, GlasRoc sheathing, SecurockTM glass-mat sheathing, Weather DefenseTM Platinum sheathing, GreenGlass sheathing, PermaBaseTM cement-board by National Gypsum and other cement-boards (ASTM C1325 Type A Exterior) Exposure 1 or exterior plywood sheathing (grade C-D or better), Exposure 1 OSB, gypsum sheathing (ASTM C79 / ASTM C1396) pressure or fire retardant treated wood. steel and aluminum.

## PRODUCT HIGHLIGHTS

- Can be applied to damp substrates
- Withstands rainfall immediately after application
- 180 days UV exposure
- · Fast cure and tack-free time
- Bonds to a wide range of substrates
- Does not contain solvents, phthalates or isocyanates.

## SURFACE PREPARATION

Apply to clean surfaces free of frost, debris, contamination and materials that may inhibit bonding. Remove any standing water such that

no water is visible or transferred to skin upon touching the surface. Test bonding performance on a small area before proceeding with overall application.

## APPLICATION

## Flashing Rough Openings:

- 1. Apply 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.
- 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 form a uniform, continuous, void and pinhole-free membrane with a 12-20 mil thickness. Extend MasterSeal® AWB 900 membrane minimum 4 inches onto the exterior wall, maintaining 12-20 mil thickness.
- Extend MasterSeal® AWB 900 at a minimum 4 inches onto the exterior wall, maintaining 12-20 mil thickness.
- 4. Allow MasterSeal® AWB 900 to skin before applying MasterSeal® AWB fluid-applied air/ water-resistive barrier to sheathing. Lap the air/ water resistive barrier a minimum of 2 inches onto MasterSeal® AWB 900, creating a continuous, monolithic air/water-resistive barrier membrane.
- Allow MasterSeal® AWB 900 to cure prior to the installation of windows, doors and other wall assemblies.



## **Sheathing Joints:**

- Apply a thick bead of MasterSeal® AWB 900 to sheathing joints.
- Spread MasterSeal® AWB 900 evenly a minimum of 1-inch beyond the joint on either side. Apply 20 mils of MasterSeal® AWB 900 across the sheathing joint.
- 3. Spot fastener heads with MasterSeal® AWB 900 or MasterSeal® AWB fluid-applied air/water-resistive barrier.
- Allow MasterSeal® AWB 900 to skin before applying MasterSeal® AWB fluid-applied air/ water-resistive barrier to sheathing.

#### Inside and Outside Corners:

- 1. At the inside and outside corners, 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 void and pinhole-free membrane.
- Spot fastener heads with MasterSeal® AWB 900 or MasterSeal® AWB fluid-applied air/water resistive barrier.
- Allow MasterSeal® AWB 900 to skin before applying Master Builders Solutions fluid-applied air/water resistive barrier to sheathing.

## Penetrations through wall construction:

**1.** MasterSeal® AWB 900 can be used to seal penetrations up to 1/2 inch gap.

## CURING

MasterSeal® AWB 900 typically skins in 25 to 40 minutes and cures in 4 to 6 hours of application at 75 °F and 50% relative humidity. Warmer and more humid conditions will accelerate curing. Cure times will be extended in dry and cold conditions. MasterSeal® AWB 900 can be applied to frost-free, dry substrates above 25 °F, but curing will not be initiated until temperature rises and remains above 32 °F.

#### LIMITATIONS

- The application of MasterSeal® AWB 900 should not exceed 30 mils for noncombustible construction.
- 2. MasterSeal® AWB 900 is not designed to bridge gaps greater than 1/2 inch.
- **3.** Damp substrates should be free of standing or visible water.

- 4. Do not apply to frozen surfaces.
- **5.** Protect MasterSeal® AWB 900 during transportation & storage to avoid physical damage.

#### Cleaning:

Immediately after use, clean equipment with Xylene or other appropriate solvent. Use proper precautions when handling solvents. Remove cured membrane by cutting with a sharp-edged tool. Remove thin films by abrading.

## TECHNICAL SUPPORT

Consult the Master Builders Solutions
Construction Systems Technical Services
Department for specific recommendations
concerning all other applications. Consult the
Master Builders website, www.master-builderssolutions.com/en-us, for additional information
about products and systems and for updated
literature.

#### **HEALTH AND SAFETY**

Follow good safety and industrial hygiene practices during handling and installing products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read Safety Data Sheet (SDS) and related literature on this product before specification and/or installation.

Solids 99% solids

#### **VOC Content**

30 g/l, or 0.25 lbs/gal less water and exempt solvents per ASTM D2369 (based in part on EPA method 24)

IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.

## LIMITED WARRANTY NOTICE

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AAMA 714-15 Voluntary Specification for Liquid Applied Flashing Used to Create a Water-Resistive Seal Around Exterior Openings in Buildings

| PROPERTY   | RESULTS  | TEST METHOD  |
|--|--|--|
| Peel Adhesion  Control AAMA 714 Sec 5.1  UV exposure Sec 5.3, ASTM G154  Elevated temperature AAMA 714 Sec 5.4  Thermal cycling AAMA 714 Sec 5.5  7 day water immersion AAMA 714 Sec 5.7 | Tested over ASTM C1177 sheathing, plywood, OSB, concrete (mortar), CMU, galvanized steel, aluminum Pass control and after conditioning, min. 5 pli           | ASTM C794  |
| Crack Bridging   | Pass, no failure after 10 cycles with 1/8" gap and water holdout of 550 mm (21.7") for 24 hours, tested at 60 mils per ASTM C1305 instructions               | AAMA 714 Sec 5.6, ASTM C1305                                     |
| Nail Sealability   | Pass, before and after thermal cycling, 24 hours at 40 °F with 31.75 mm (1 $\%$ ") head of water   | AAMA 714 Sec 5.2 (AAMA 711 Sec 5.2), modified ASTM D1970 sec 7.9 |
| Accelerated Aging  | Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 14 days (336 hours) to Cycle 1 of G154         | ASTM E 96 Method A   |
| Elevated Temperature   | Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage at 50 °C (122 °F), 65 °C (149 °F) and 80 °C (176 °F) | AAMA 714 Sec 5.4   |
| Thermal Cycling  | Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 10 cycles                                      | AAMA 714 Sec 5.5   |
| Water Immersion  | Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 7 days   | AAMA 714 Sec 5.7   |
| Adhesion to Damp Substrates  | Pass, min 5 pli, over OSB and mortar (absorptive substrates)   | AAMA 714 Sec 6.1 and 6.2   |
| Water Vapor Permeability   | 19.9 perms @ 12 mils<br>7.2 perms @ 30 mils  | AAMA 714 Sec 6.3, ASTM E96<br>Method B                           |

Note: All testing with MasterSeal® AWB 900 at 12 mils unless otherwise noted

AAMA 711-13 Voluntary Specification for Self Adhering Flashing Used for Installation of Exterior Wall Fenestration Products

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|--|---|
| RESULTS  | TEST METHOD   |
| Tested over ASTM C1177 sheathing, plywood, OSB, PVC, galvanized  | ASTM D3330 Method F   |
| steel, aluminum  |   |
| Pass control and after conditioning, min. 1.5 pli  |   |
|  |   |
|  |   |
|  |   |
| Pass, min 2.9 pli, at 12 and 30 mils   | AAMA 711 Sec 5.1,   |
|  | ASTM D5034  |
| Pass, before and after thermal cycling, 24 hours at 40 °F with 31.75 mm  | AAMA 711 Sec 5.2, modified  |
| (1 ¼") head of water   | ASTM D1970 Sec 7.9  |
| Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage at 50 °C (122 °F), 65 °C (149 °F) and 80 °C (176 °F) | AAMA 714 Sec 5.5  |
| Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 10 cycles                                      | AAMA 714 Sec 5.6  |
| Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 7 days   | AAMA 711 Sec 5.7, ASTM D1970<br>Sec 7.6   |
| Pass, no signs of peeling after 7 days exposure to elevated temperatures - 50 °C (122 °F), 65 °C (149 °F) and 80 °C (176 °F)                                 | AAMA 711 Sec 5.9, Annex 2   |
|  | Tested over ASTM C1177 sheathing, plywood, OSB, PVC, galvanized steel, aluminum  Pass control and after conditioning, min. 1.5 pli  Pass, min 2.9 pli, at 12 and 30 mils  Pass, before and after thermal cycling, 24 hours at 40 °F with 31.75 mm (1 ¼") head of water  Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage at 50 °C (122 °F), 65 °C (149 °F) and 80 °C (176 °F)  Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 10 cycles  Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 7 days  Pass, no signs of peeling after 7 days exposure to elevated temperatures |

Note: All testing with MasterSeal® AWB 900 at 12 mils unless otherwise noted

ICC-ES AC212 Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over Exterior Sheathing, approved February 2015

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|--|--|----------------------------------|
| PROPERTY   | RESULTS  | TEST METHOD                      |
| Tensile Bond   | Tested over ASTM C1177 sheathing, plywood, OSB, cement board, PVC, aluminum, galvanized steel and stainless steel Pass, > 105 kPa (15 psi)                                 | AC 212 Sec 4.1, ASTM C297        |
| Freeze-Thaw  | Pass, 10 cycles, no deleterious effects such as cracking, checking, crazing or erosion, viewed at 5x magnification   | AC212 Sec 4.2                    |
| Water Resistancet  | Pass, 14 day exposure, no deleterious effects such as cracking, checking, crazing or erosion   | AC212 Sec 4.3, ASTM D2247        |
| Water Vapor Permeability   | 19.9 perms @ 12 mils<br>7.2 perms @ 30 mils  | AC212 Sec 4.4, ASTM E96 Method B |
| Water Penetration  | Pass, testing performed with MasterSeal AWB 900 exposed over sheathing joints. No water penetration at 137 Pa (2.86 psf), 299 Pa (6.24 psf) or 575 Pa (12psf)              | AC212 Sec 4.5, ASTM E331         |
| Sequential - Structural, Racking,<br>Restrained Environmental and Water<br>Penetration<br>1. Structural ASTM E1233<br>2. Racking ASTM E72<br>3. Restrained Environmental AC212 Sec 4.7.3 | Pass, testing performed with MasterSeal AWB 900 exposed over sheathing joints  No cracking at joint or interface of flashing No cracking at joint or interface of flashing | AC212 Sec 4.7                    |
| 4. Water Penetration ASTM E331   | No cracking at joint or interface of flashing<br>No water penetration at 137 Pa (2.86 psf), 299 Pa (6.24 psf) or 575 Pa<br>(12psf)   |                                  |
| Sequential – Weathering Test 1. UV Exposure AC212 Sec 4.8.1 2. Accelerated Aging AC212 Sec 4.8.2 3. Hydrostatic Pressure AATCC 127   | Pass No cracking or bond failure after 210 hrs No cracking or bond failure after 25 cycles No water penetration under 550 mm (21.7") head of water                         | AC212 Sec 4.8                    |
| Air Permeance of Building Materials  | 0.00410 L/s-m² @ 75 Pa (0.00082 cfm/ft² @ 1.57 psf), performed on 12 mil thick free film sample  | ASTM E2178                       |
|  |  |                                  |

Note: All testing with MasterSeal® AWB 900 at 20 mils unless otherwise noted

## **Additional Testing**

| PROPERTY                              | RESULTS  | TEST METHOD        |
|---------------------------------------|--|--------------------|
| Air Permeance of Building Materials   | 0.00410 L/s-m² @ 75 Pa (0.00082 cfm/ft² @ 1.57 psf), performed on free film sample   | ASTM E2178         |
| Air Leakage of Air Barrier Assemblies | 0.0463 L/s-m² @ 75 Pa (0.00926 cfm/ft² @ 1.57 psf), tested over C1177 sheathing, sheathing joints and penetration details treated with MasterSeal AWB 900, no other coating used | ASTM E2357         |
| Nail Sealability                      | Pass, before and after thermal cycling, 3 days at 40 °F with 127 mm (5") head of water   | ASTM D1970 Sec 7.9 |
| Surface Burning                       | Class A flame spread <25<br>Class A smoke developed <450<br>Tested at 30 mils  | ASTM E84           |

Note: All testing with MasterSeal® AWB 900 at 12 mils unless otherwise noted

