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Technical Data Guide

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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. propack with 20 propacks 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 BASF 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 DensGlass™ exterior sheathing, DensElement™, eXPTM sheathing, GlasRoc sheathing, Securock™ glass-mat sheathing, Weather Defense™ Platinum sheathing, GreenGlass sheathing, PermaBase™ 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.

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 ¼") 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 7.2 perms @ 30 mils	AAMA 714 Sec 6.3, ASTM E96 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

PROPERTY	RESULTS	TEST METHOD
Peel Adhesion Control AAMA 711 Sec 5.3 UV exposure Sec 5.4, ASTM G154 Elevated temperature AAMA 711 Sec 5.5 Thermal cycling AAMA 711 Sec 5.6 7 day water immersion AAMA 711 Sec 5.8	Tested over ASTM C1177 sheathing, plywood, OSB, PVC, galvanized steel, aluminum Pass control and after conditioning, min. 1.5 pli	ASTM D3330 Method F
Tensile Strength	Pass, min 2.9 pli, at 12 and 30 mils	AAMA 711 Sec 5.1, ASTM D5034
Nail Sealability	Pass, before and after thermal cycling, 24 hours at 40 °F with 31.75 mm (1 ¼") head of water	AAMA 711 Sec 5.2, modified ASTM D1970 Sec 7.9
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 5.5
Thermal Cycling	Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 10 cycles	AAMA 714 Sec 5.6
Cold Temperature Pliability	Pass, no deleterious effects such as wrinkling, distortion, blistering, expansion, shrinkage or warpage after 7 days	AAMA 711 Sec 5.7, ASTM D1970 Sec 7.6
Peeling Resistance	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

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

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 7.2 perms @ 30 mils	AC212 Sec 4.4, ASTM E96 Method B
Water Penetration	Pass, testing performed with MaxFlash 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, Restrained Environmental and Water Penetration	Pass, testing performed with MaxFlash exposed over sheathing joints	AC212 Sec 4.7
1. Structural ASTM E1233 2. Racking ASTM E72 3. Restrained Environmental AC212 Sec 4.7.3 4. Water Penetration ASTM E331	No cracking at joint or interface of flashing No cracking at joint or interface of flashing No cracking at joint or interface of flashing No water penetration at 137 Pa (2.86 psf), 299 Pa (6.24 psf) or 575 Pa (12psf)	
Sequential – Weathering Test	Pass	AC212 Sec 4.8
1. UV Exposure AC212 Sec 4.8.1 2. Accelerated Aging AC212 Sec 4.8.2 3. Hydrostatic Pressure AATCC 127	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	
Air Permeance of Building Materials	0.00410 L/s-m ² @ 75 Pa (0.00082 cfm/ft ² @ 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-m ² @ 75 Pa (0.00082 cfm/ft ² @ 1.57 psf), performed on free film sample	ASTM E2178
Air Leakage of Air Barrier Assemblies	0.0463 L/s-m ² @ 75 Pa (0.00926 cfm/ft ² @ 1.57 psf), tested over C1177 sheathing, sheathing joints and penetration details treated with MaxFlash, 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 Class A smoke developed <450 Tested at 30 mils	ASTM E84

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

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.
3. 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.
5. Allow MasterSeal® AWB 900 to cure prior to the installation of windows, doors and other wall assemblies.

Sheathing Joints:

1. Apply a thick bead of MasterSeal® AWB 900 to sheathing joints.
2. 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.
4. 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.
2. Spot fastener heads with MasterSeal® AWB 900 or MasterSeal® AWB fluid-applied air/water resistive barrier.
3. Allow MasterSeal® AWB 900 to skin before applying BASF fluid-applied air/water resistive barrier to sheathing.

Penetrations through wall construction:

1. MasterSeal® AWB 900 can be used to seal penetrations up to ½ 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

1. 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 BASF Construction Systems Technical Services Department for specific recommendations concerning all other applications. Consult the Master Builders website, www.master-builders-solutions.basf.com, 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)

**For medical emergencies only,
call CHEMTREC at (800) 424-9300.**

WARRANTY

BASF warrants this product to be free from manufacturing defects and to meet the technical properties on the current Product Bulletin, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. **BASF MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS.** The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of BASF. In the absence of an extended warranty issued by BASF, any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. **BASF WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.**

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