



## Installation Instructions AUSSIE MEMBRANE 500 - Fluid Applied Waterproofing Membrane

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## Installation Instructions

### AUSSIE MEMBRANE 500 - Fluid Applied Waterproofing Membrane

#### General

##### Description

The AUSSIE MEMBRANE 500 is a vapor-proof, brown rubber/bitumen liquid emulsion with excellent adhesion, which dries to a tough, black seamless flexible waterproof membrane. The AUSSIE MEMBRANE 500 is a thixotropic cold-applied bitumen emulsion with added rubber latex. It exhibits excellent elongation and recovery properties.

##### Where To Use

**Walls:** Waterproof below-grade concrete and block walls, basements and wet rooms.

**Floors:** In-between slab waterproofing. To provide a sandwich membrane in-between two concrete slabs.

**Planters:** Waterproof planters and other landscaping features.

**Balconies:** For waterproofing under concrete toppings on balconies, walkways and other common areas (Including over living space). concrete topping (sometimes referred to as hard rock) must be a minimum 2.5" thick and minimum 2500 PSI.

**Under Tile:** Waterproof under terrazzo and ceramic tile applications when using a thick-set or mud-bed over the membrane.

##### Approvals

AUSSIE MEMBRANE 500 meets AC-29 Testing Standards. (These standards are used by ICC for below-grade fluid applied waterproofing membranes testing).

##### Applicator

The applicator shall either be an AVM Industries Authorized Installer or be completely experienced in the application of the materials of this system and has read and understood these installation instructions prior to commencing the work.

##### Product Delivery, Storage and Handling

- A.** Delivery of all the AUSSIE MEMBRANE 500 materials to the job site must be in their original sealed containers, with the manufacturer's name and label intact.
- B.** Store at temperatures between 50°F and 90°F. Do not store materials in direct sunlight or where they may be damaged by water or rain.
- C.** Keep all materials out of the reach of children.
- D.** If irritation occurs during use, liberally flush affected areas with water. If irritation continues, see a physician immediately.

##### Limitations

**Temperatures:** Do not apply when temperatures cannot be maintained above 50°F for a minimum of 48 hours or until cured or if precipitation is imminent. Do not apply materials in direct sunlight at temperatures above 100°F.

**UV Resistance:** Install acceptable protection as soon as the membrane has cured. Do not leave membrane exposed to UV for more than 14 days. Strictly adhere to the Installation Instructions. Failure to do so, may result in the membrane's failure.

**Green/Wet Concrete:** Substrates do not need to be fully cured. The Aussie Membrane may be applied to damp surfaces. Do not apply the Aussie Membrane to waterlogged surfaces. If substrates are oozing water, allow 24 hours cure time after water has stopped oozing prior to installing the Aussie Membrane.

**PSI:** On traffic bearing surfaces, concrete substrates shall achieve a min compression strength of 2000 psi prior to installation.

##### Acceptable Substrates

Concrete substrates exceeding 2000 psi, concrete blocks (CMU), ICF (Insulated Concrete Forms)

Steam Rooms: Maximum temperatures for the AUSSIE MEMBRANE 500 are 167°F or 75°C.

##### Safety

No special protective gear is required during the application of the system materials, except safety glasses for eye protection.

##### Tools Needed for Application

- A.** Cutting Knife
- B.** Brush
- C.** Roller (Helpful for large areas)
- D.** Airless or other sprayer if spraying



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### AUSSIE MEMBRANE 500 - Fluid Applied Waterproofing Membrane

#### Products

##### Aussie Membrane Materials

- Aussie Powder 500: Additive used to mix into Aussie System 500 to transform it into a trowel-grade membrane
- Aussie Membrane supplied in 5 gallon buckets.
- Optional reinforcement: AVM Mat 800, Polyester Stitchbond, 6"x300' and 40"x324', as supplied by AVM Industries.

#### Substrate Inspection and Preparation

##### Inspection of Concrete or Block Wall Substrates

- A. Substrates shall be sound, stable, clean, free of dirt, dust, oil, grease and curing agents.
- B. Concrete finish shall be straight without waviness or noted defects, finished with a light broom surface texture. Block walls to have all grout lines filled up.
- C. Damaged surfaces with noted defects shall be repaired prior to commencement of the Aussie Membrane application.
- E. On horizontal surfaces, Verify that substrate provides adequate slope for proper drainage. (Minimum slope: 1/4" per foot)
- F. When applicable, verify that all sheet metal flashing and related accessories are properly secured and joints solidly imbedded in sealant. Install edging and other related metals where shown or required for a complete installation.
- G. Expansion Joints: DO NOT COVER EXPANSION JOINTS. If expansion joints exist, contact the architect or AVM Industries for further instructions on how they should be waterproofed.
- H. Prior to installation verify that moisture in the concrete should not exceed 3 lbs based on calcium chloride test or 5% based on digital moisture testing. If it does, an epoxy moisture/vapor block will be required. Thereafter, epoxy primer 400 will be required as well.

##### Preparation of Concrete and Block Wall Substrates

- A. Remove latence, oil, grease, curing agents, debris and other deleterious materials from surfaces scheduled to receive application. On horizontal, older, or very dirty substrates, high pressure washing or bead blasting are highly recommended. If needed, apply a thin slurry coat of AVM Crete 6200.
- B. Clean hairline or small cracks and rout out all cracks wider than 3/16 inch. Seal the large cracks flush with Aussie Seal M Sealant.
- C. Grind off any sharp edges and protrusions. Fill in all gaps or cracks larger than 1/8" wide with either Aussie Patch, a parge coat or Aussie Seal M.
- D. Cold Joints and other wall-to-deck joints or inside corners: Wherever possible, install a 45 degree cant strip at these joints. Minimum cant strip size shall be 2"x2" mortar or 3/4" Aussie Seal M.. Failure to install cant strips could cause premature failure of the membrane and void the warranty.
- E. Just prior to beginning the installation of the Aussie Membrane, thoroughly clean the areas to receive this work with a broom or blower to remove all debris and dust from the work area.

##### System Application

*Important Note: The following material coverages may vary based on job conditions, Substrate conditions and other factors. Please read the coverage charts carefully prior to the application of the Aussie Membrane.*

#### Membrane Installation Instructions

**Reinforcement** Reinforce all cracks, joints and inside and outside corners by covering them with the 6" fabric embedded in some of the Aussie Membrane material. (Optional) Apply a second layer of the 6" fabric and Aussie Membrane material at critical corners and areas subjected to stress or movement. Allow to dry until dry to the touch before proceeding to the next step. Reinforcing corners and other critical areas helps strengthen the membrane in the most critical areas, thus reducing potential failures.



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**Aussie Membrane Installation** - Apply the Aussie Membrane using a roller, brush or sprayer. On vertical applications, minimum thickness of the completed, cured membrane shall be 60 mils in non-hydrostatic conditions and 90 mils in hydrostatic conditions. On horizontal applications, min thickness of the cured membrane shall be 90 mils. Some assemblies may require thicker applications. Refer to the Aussie Membrane 500 Details for more information

**Mixing:** Mixing the Aussie Membrane causes the material's viscosity to drop considerably. When opening the bucket, the material has a viscosity similar to grease. Mixing the Aussie Membrane with a drill and paddle for 30-60 seconds, will change the material's viscosity to be like paint. This does not harm the material. Furthermore, after 72 hours, if left in a sealed bucket, the Aussie Membrane will return to its original viscosity. Using the Aussie membrane in its thinner form is very useful in the following situations:

1. If spraying the Aussie Membrane material.
2. When a primer is not used, the first coat should be applied thin for better penetration and improved bonding.

#### **Application: (Roller/Brush)**

**First Coat:** Apply a liberal coat of the Aussie Membrane to all surfaces. Apply rolling up and down. Allow to cure until dry to the touch. Typically, 2-4 hours at 75°F and 50% relative humidity.

**Second Coat:** Apply a second coat of the Aussie Membrane rolling side to side. Allow to dry to the touch.

**Membrane Inspection:** Check for pinholes, crack bridging and proper thickness using a mil gauge. If gaps or cracks still exist (such as cracks between the block and the grout are still visible) apply additional coats as needed of the Aussie Membrane. Make sure the membrane has reached its minimum required thickness in all areas as specified. Full cure is typically achieved 24 hours after the final coat was applied. Drying times may vary based on temperature, humidity and other factors.

#### **Application: (Spray)**

Mix contents in the bucket with drill and paddle for 30 - 60 seconds. Product will thin out significantly. (The thinning does not affect performance) Do NOT add water. Use an airless or other sprayer to apply. (For sprayer specifications, contact AVM Industries) Apply product spraying up and down until saturated but stop before dripping or sagging occurs. Once dry to the touch, apply a second coat spraying side to side. Check for pinholes and proper thickness using a mil gauge. Make sure the membrane reached its minimum required thickness. If needed, continue spraying additional coats as described above until the required thickness has been achieved. Full cure is typically achieved 24 hours after the final coat was applied. Drying times may vary based on temperature, humidity and other factors.

#### **Important Note:**

Although it is possible to spray 60 dry mils in one coat, doing so in two coats reduces the chances of leaving spots and pinholes uncovered or with too little product.

#### **Membrane Inspection**

1. Visually inspect all coated surfaces to ensure a full adhesion and proper coating application, especially at corners, drainage areas, footings and other hard-to-reach areas.
2. Carefully inspect the membrane for pinholes. (The membrane should be completely and evenly sealed) If pinholes are found, apply additional coats of the Aussie Membrane until the imperfections are sealed.
3. If bubbles, or other imperfections are found, remove them and the surrounding area by cutting them out and reinstalling the membrane per the membrane installation instructions.
4. **Flood testing is highly recommended whenever possible. Do not flood test until membrane has fully cured.**

#### **The Following Pages Contain the Specifications Listed Below:**

1. Flood Testing Procedures
2. Protection Board / Drainage Board / Drainage System Specifications
3. Repair Specifications
4. Coverage Charts and Technical Information

## Installation Instructions

### AUSSIE MEMBRANE 500 - Fluid Applied Waterproofing Membrane

#### Flood Testing Specifications

It is not always practical or feasible to do a flood test, but when it can be done it can be very helpful in finding leaks and fixing them quickly and inexpensively. Examples: 1. Planter boxes where the drains can be sealed and the planter boxes filled with water. 2. In some applications, the Aussie Membrane is berried underneath the finished surfaces (such as tile or concrete topping) and is not readily accessible for repairs. If leaks are found, the only way to repair them would be to remove the tile or topping, repair the damaged membrane, and then reinstall the tile or topping. This would be time consuming, inconvenient and costly. If all possible, dam these areas and fill with water to test for waterproofness before proceeding to the next step.

Flood testing provides an efficient and economical method to test the waterproofness of the membrane prior to proceeding with the installation of the protective component or the finished surfaces. Following are some guidelines for flood testing.

1. **Make sure the membrane is fully cured.**
2. Visually inspect corners and other hard to reach areas for openings where water might penetrate.
3. Fix all openings prior to proceeding with the flood test
4. Close the drains using drain plugs or other methods
5. Be careful not to damage the membrane while walking on it or plugging the drains.
6. Slowly fill the deck area with water. Do not overfill. Be extra careful when flood testing on decks built over wood substrates. The extra weight of the water could cause damage or cause the deck to collapse. If you are not sure the deck can support the extra weight of the water, consult with an architect or structural engineer before flood testing.

#### Protection Board / Drainage Board / Drainage System Specifications

- PB:** Protection Boards: Several types of Protection Boards are commonly used and acceptable for use with the Aussie Membrane.
1. 1/4" fanfold foam boards such as Amoco, Dow or Insulfoam.
  2. Foam panels, typically 1/2" thick or more.
  3. Protective panels 4'x8' 1/4" or thicker made by Gardner/Apoc or equal.
- DB:** Drainage Boards: Several types of Drainage Boards are commonly used and acceptable for use with the Aussie Membrane.
1. For vertical applications use Drainage Boards with a minimum 3/8" thick cores, such as AVM Drain Board 6000.
  2. For non-vehicular horizontal applications with topping slabs up to 4" thick, Use AVM Drain Board 6000.
  3. For Vehicular horizontal applications or topping slabs exceeding 4" thick, use AVM Drain Board 9000.
- DS:** Drainage Systems to remove hydrostatic pressures may be required. Consult engineer or AVM for details. Examples include:
- French Drains: At footings, cold joints and other areas where water could accumulate, use a french drain system (or other approved method) to remove water and release hydrostatic pressure. If weep-holes are used, make sure to cover the weep-hole's entrances with gravel, fabric or other acceptable means to prevent the weep-holes from clogging. Make sure a sufficient number of weep-holes are installed and that they are large enough to handle the amounts of water expected to pass thru them.
- Note:** Applications in the water table and applications above the water table without sufficient Drainage Systems are also considered Hydrostatic Applications.



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### Repairing Damage to the Aussie Membrane 500, Aussie Membrane (When substrate is not damaged)

#### Damage Description (1)

A leak or a bad section of the Aussie Membrane is detected. No protection or finished surfaces are installed.

#### Method of Repair

1. Cut out an area of the membrane 6" larger in diameter than the defective area.
2. Clean the substrate of any loose materials using a scraper or a stiff brush.
3. Remove anything else that might prohibit bonding of the new materials.
4. Reapply the Aussie Membrane to the damaged area following the appropriate installation instructions. (min 4" overlap)
5. Allow to properly cure. Once cured, visually inspect the repaired area for imperfections.
6. Continue to add layers until the proper thickness is achieved.
7. (Optional) Do another flood test.

#### Damage Description (2)

A leak or a bad section of the Aussie Membrane is detected. Protection/Drainage Board is installed. No finished surfaces are installed.

#### Method of Repair

1. Remove Protection/Drainage boards from an area 9"-12" larger in diameter than the defective area.
2. Cut out an area of the membrane 6" larger in diameter than the defective area.
3. Clean the substrate of any loose materials using a scraper or a stiff brush.
4. Remove anything else that might prohibit bonding of the new materials.
5. Reapply the Aussie Membrane to the damaged area following the appropriate installation instructions. (min 4" overlap)
6. Allow to properly cure. Once cured, visually inspect the repaired area for imperfections.
7. Continue to add layers until the proper thickness is achieved.
8. (Optional) Do another flood test.
9. Re-install Protection/Drainage Board.

#### Damage Description (3)

A leak or a bad section of the Aussie Membrane is detected. Protection/Drainage Board is installed. Topping surface is installed as well.

#### Method of Repair

1. Gently as possible, remove the finished surface from an area 16"-24" larger in diameter than the defective area. Be careful not to damage the membrane underneath.
2. Remove Protection/Drainage boards from an area 9"-12" larger in diameter than the defective area.
3. Cut out an area of the membrane 6" larger in diameter than the defective area.
4. Clean the substrate of any loose materials using a scraper or a stiff brush.
5. Remove anything else that might prohibit bonding of the new materials.
6. Reapply the Aussie Membrane to the damaged area following the appropriate installation instructions. (min 4" overlap)
7. Allow to properly cure. Once cured, visually inspect the repaired area for imperfections.
8. Continue to add layers until the proper thickness is achieved.
9. (Optional) Do another flood test.
10. Re-install Protection/Drainage Board.
11. Re-Install Finished Surface Materials.

### Repairing Damage to the Aussie Membrane 500, Aussie Membrane (When the substrate is damaged)

#### Damage Description (4)

A leak or a bad section of the AVM Membrane 700 is detected and the substrate is damaged as well.

#### Method of Repair

You MUST contact AVM Industries, an authorized AVM Industries installer or a professional contractor to review the damage. Since the substrate is damaged, the repairs must be done very carefully to ensure the Fire Resistance and or the Structural Strength of the deck is not compromised during and after the repairs.



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### Coverage Charts & Technical Information

*The following coverages are based on controlled tests. Actual coverages may vary.*

Materials	One Kit Makes	One Kit Covers at 1/16" Thick
Optional Slurry Coat - AVM Crete 6200	4 Gallons of Mixed Product	80 - 100 Square Feet
Weight of 1 Sqft of AVM Crete 6200 installed and Cured		1 Sqft at 1/16" thick = ~0.625 Lbs

Materials	Over Block Walls (CMU)	Over Concrete
Aussie Membrane (Paste)	22-25 Sqft/gal at 60 Dry Mils	25 Sqft/gal at 60 Dry Mils
Matt 800 6"x300 feet long for cant strips & corners	270-300 Feet. Allow 5%-10% waste	270-300 Feet. Allow 5%-10% waste

### Technical Data - AUSSIE MEMBRANE 500

Color:	Dark brown. After drying: black	
Specific Gravity:	1.189 gr/cm <sup>2</sup>	
Flash Point:	Non-flammable	
Service Temperature:	15°F-177°F (-10°C to +80°C)	
Application Temperature:	42°F-132°F (+5°C to 55°C)	
Tensile Strength:	>15.4 Lbs (>7 kg)	ASTM D412
Elongation at break:	>1000%	ASTM D412
Resistance to water pressure 1 tm 24 hr	Passed	ASTM D751
Water vapor transmission	4.0 gr/m <sup>2</sup> 24 hr	ASTM D96
Recovery	85%	IS 1536
Creep At 177°F (80°C)	No Creep	DIN 52123
Resistance to Standing Water	Passed	ASTM D2939
Bacterial Attack in soil 30 days @ 105°F (40°C)	Passed	ASTM D2939
Crack bridging	>3/16" (>5mm)	IS 1731
Certifications:	ISO 9002, Green Label, I.Q. Net (International Certification Network)	



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General Information - AUSSIE MEMBRANE 500	
Shelf Life: (Liquids)	One year from manufacturing date in original unopened packaging.
Storage Conditions:	Store dry/shade at 50-90F. If frozen, discard
Cement Mixing Ratio:	One 50 Lbs bag Aggregate 200 to 1.0-1.25 gal additive 7400
Primer 500 Color	Blue
Aussie Membrane Color:	Black
Additive Color:	AVM Additive 7400 is Milky/Clear
Slurry Coat	AVM Crete 6200 is Gray.
Slurry Coat Strength:	AVM Crete 6200 achieves over 6200 PSI when cured, providing excellent protection and bonding

<b>Packaging:</b>	AVM Aggregate 200 ..... 50 LB Bag AVM Additive 7400 ..... 2.0/5.0 Gal pails Aussie Powder ..... 1kg Jar Aussie Membrane ..... 5.0 Gal pail Mat 800 6" wide x 300 Ft. Long ..... 150 Sq. Ft	<b>Approximate Shipping Weights:</b>	AVM Aggregate 200 ..... 50 Lbs/Bag AVM Additive 7400 2.0/5.0 Gal ..... 18/46 Lbs Aussie Powder ..... 2.2 Lbs Aussie Membrane ..... 52.5 Lbs Mat 800 6" wide x 300 Ft. Long ..... 3.0 Lbs
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