



8245 Remmet Ave Canoga Park, CA. 91304 (818) 888-0050

**Installation Instructions - AVM System 520**  
**AUSSIE MEMBRANE 520 - Polyurethane Fluid Applied Waterproofing Membrane**

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**Installation Instructions - AVM System 520**  
**AUSSIE MEMBRANE 520 - Polyurethane Fluid Applied Waterproofing Membrane****General****Description**

The AUSSIE MEMBRANE 520 is a vapor proof, Gray liquid polyurethane, which dries to a tough, seamless flexible waterproof membrane. The AUSSIE MEMBRANE 520 is a single component cold-applied polyurethane liquid. It exhibits excellent adhesion, strength, elongation and recovery properties.

**Where To Use**

**May be applied directly to concrete, CMU (block) or plywood**

**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 resist excessive cracking (typically it's a minimum 2.5" thick and 2500 PSI)

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

**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 AVM System 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 40°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 7 days! Strictly adhere to the Installation Instructions. Failure to do so, may result in the membrane's failure.

**Green/Wet Concrete:** Concrete substrates do not need to be fully cured. Depending on weather conditions and other factors, the Aussie Membrane 520 may be applied to concrete that's been cured a minimum of seven (7) days. Depending on the amount of moisture, epoxy primer 400 may be needed. Do not apply the Aussie Membrane to waterlogged surfaces. Verify adhesion via a properly conducted pull test. Max moisture content is either 5% or 3 pounds based on the calcium chloride test. Contact AVM for details.

**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 or concrete blocks (CMU).

Steam Rooms: Maximum temperatures for the AVM System 520 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. Graco approved polyurethane pumps

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**Installation Instructions - AVM System 520**  
**AUSSIE MEMBRANE 520 - Polyurethane Fluid Applied Waterproofing Membrane****Products****Aussie Membrane Materials**

- **Optional Primers:** AVM water-based Epoxy Primer 400 or High Solids Epoxy Primer 680SC. Contact AVM Industries or your local rep for details.
- Aussie Membrane 520 supplied in 5 gallon buckets..
- Optional reinforcements: AVM Mat 570 Spunbonded Polyester Mat or AVM 800, Polyester Stitchbond, as supplied by AVM Industries.

**Substrate Inspection and Preparation****Inspection of Concrete or Block Wall Substrates**

- Substrates shall be sound, stable, clean, free of dirt, dust, oil, grease and curing agents.
- 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!
- Damaged surfaces with noted defects shall be repaired prior to commencement of the Aussie Membrane application.
- On horizontal surfaces, Verify that substrate provides adequate slope for proper drainage. (Minimum slope: 1/4" per foot)
- 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.
- 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.

**Preparation of Concrete and Block Wall Substrates**

- Remove latence, oil, grease, curing agents, debris and other deleterious materials from surfaces scheduled to receive application. Physically scrape walls with a scraper. On horizontal, older, or very dirty substrates, high pressure washing or bead blasting are highly recommended. If needed, apply a thin slurry coat (Parge Coat) of AVM Crete 6200.
- Clean hairline or small cracks and rout out all cracks wider than 3/16 inch. Seal the large cracks flush with AVM Aussie Seal M Sealant.
- Cold Joints and other wall-to-deck joints: Wherever possible, install a 45 degree cant strip at these joints. Minimum cant strip size shall be 2"x2". Failure to install cant strips could cause premature failure of the membrane and void the warranty.
- 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**

**Primer (Optional)** In some cases, applying a primer prior to installing the Aussie Membrane 520 is recommended. If unsure, do a pull test. For proper primer selection contact AVM Industries.

**Reinforcement (Optional)** Reinforce all cracks, joints and corners by covering them with a strip of 6" reinforcing fabric embedded in some of the Aussie Membrane 520 material. 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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## Installation Instructions - AVM System 520

### AUSSIE MEMBRANE 520 - Polyurethane Fluid Applied Waterproofing Membrane

**Aussie Membrane 520 Installation - Standard Warranty** (For extended warranty applications, see last page)

Apply the Aussie Membrane using a roller, brush or sprayer. Minimum thickness of the completed, cured membrane shall be as follows:  
Refer to: **AUSSIE MEMBRANE (AVM System 520) - Min Thickness Table and Protection Guidelines**

**Mixing:** It is recommended the polyurethane be mixed with a drill and paddle prior to application.

**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, 12-24 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.

**Important note:** The second coat of polyurethane (and any subsequent coats thereafter) must be applied while the existing polyurethane is still tacky! If it's no longer tacky, epoxy primer is required.

**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) fill these gaps with AVM Aussie Seal M Sealant. After sealant cures, apply another coat of the Aussie Membrane to cover all the sealant areas. Make sure the membrane reached its minimum required thickness in all areas per the table above. Continue applying coats as described above until the required thickness has been achieved! Full cure is typically achieved 24-48 hours after the last coat was applied. Drying times may vary based on temperature, humidity and other factors.

**Fabric Reinforcement:** Embed the fabric in the middle of the membrane film if possible, or at least over 30 dry mils of Aussie Membrane 520. For example, if installing a 120 mils dry film thick membrane on a horizontal surface, install the fabric reinforcement over 60 mils of cured polyurethane (in the middle of the membrane film) or over at least 30 mils of cured polyurethane.

**Application: (Spray)**

Spray Apply using Graco pumps approved for polyurethane coatings. Apply product spraying up and down until saturated but stop before dripping or sagging occurs. Once dry to the touch, but still tacky, 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 per the table above. Continue spraying additional coats as described above until the required thickness has been achieved! Full cure is typically achieved after 24-48 hours. Drying times may vary based on temperature, humidity and other factors.

**Important Note:**

Although it might be possible to spray the required dry mils in one coat, doing so in two or more coats (depending on the final thickness) reduces the chances of sag, bubbles, pinholes or missed areas.

**Installing Membranes over Un-Vented Decks:**

1. Perform a 24 hour visqueen window test per ASTM requirements. (concrete must be cured)
2. Place min. a minimum of two 8" diameter pancakes of Aussie 520 at 60 mils thick. Leave and observe after 24 hours for pinholes.
3. Conduct a pull test: (one sample area with 4 pull strips side-by-side for every 2,000 sqft on jobs under 5,000 sqft and one sample area with 4 pull strips every 2,000 sqft for larger jobs, not to exceed 5 sample areas per one continuous slab area. Minimum two sample areas required) Cut 8" long x 2" wide strips of Mat 800. For every pull strip, place on the concrete a min 6" long by 3" wide strip 30 mils thick of Aussie membrane 520. Immediately place an 8" strip of AVM Mat 800, half embedded in the Aussie Membrane 520 (approx. 4") and half sticking out of the Aussie 520, then place another 30mils of Aussie 520 on top of the reinforcing fabric. Allow to cure. (typically, overnight, but longer cure times may be required). Thereafter, pull upwards to very adhesion (Min 5 Lbs/sq.inch).
4. Important Note: Installing Aussie Membrane 520 over non-vented decks requires the use of one of AVM's epoxy primers.

**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!**

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## Installation Instructions - AVM System 520

### AUSSIE MEMBRANE 520 - Polyurethane Fluid Applied Waterproofing Membrane

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

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

### 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 buried 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 slab, repair the damaged membrane, and then reinstall the tile or topping slab. 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.

5. **Make sure the membrane is fully cured!**
6. Visually inspect corners and other hard to reach areas for openings where water might penetrate.
7. Fix all openings prior to proceeding with the flood test
8. Close the drains using drain plugs or other methods
9. Be careful not to damage the membrane while walking on it or plugging the drains.
10. 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!



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**Installation Instructions - AVM System 520**  
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**Protection Board / Drainage Board / Drainage System Specifications**

**Protection Boards:**

Protection boards offer no drainage ability and are not recommended in vertical applications deeper than 18 inches. 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.

**Drainage Board**

Vertical applications and non-vehicular between slab applications with max 4" thick topping slabs use;  
(AVM Drain Board 6000)

All vehicular between slab applications and any horizontal applications with topping slabs thicker than 4" use; (AVM Drain Board 9000)

Other applications might require special drainage board. Consult AVM for details.  
Drainage board must cover entire area of Aussie Membrane!

**French Drains:**

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.

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**Installation Instructions - AVM System 520**  
**AUSSIE MEMBRANE 520 - Polyurethane Fluid Applied Waterproofing Membrane****Repairing Damage to the AVM Aussie Membrane 520 (When the 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. Prime with AVM's approved epoxy primer.
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.

**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. Prime with AVM's approved epoxy primer.
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.

**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. Prime with AVM's approved epoxy primer.
7. Reapply the Aussie Membrane to the damaged area following the appropriate installation instructions. (min 4" overlap)
8. Allow to properly cure. Once cured, visually inspect the repaired area for imperfections.
9. Continue to add layers until the proper thickness is achieved.
10. (Optional) Do another flood test.
11. Re-install Protection/Drainage Board.
12. Re-Install Finished Surface Materials.



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**Installation Instructions - AVM System 520**  
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**Repairing Damage to the AVM Aussie Membrane 520 (When the substrate is damaged)**

**Damage Description (4)**

A leak or a bad section of the AVM Membrane 520 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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**Installation Instructions - AVM System 520  
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**Coverage Charts & Technical Information**

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

Materials	Over Block Walls (CMU)	Over Concrete
Approved Epoxy Primer	150-200 Sqft/gal	200-300 Sqft/gal
Aussie Membrane 520	25 Sqft/gal at 60 Dry Mills	25 Sqft/gal at 60 Dry Mills
Mat 570 48"x1080 feet long, 4320 sq.ft.	Allow 5%-10% waste	Allow 5%-10% waste
Mat 800 6"x300 feet long for cant strips & corners	270-300 Linear Feet. Allow 5%-10% waste	270-300 Feet. Allow 5%-10% waste
Mat 800 12"x300 feet long for cant strips & corners	270-300 Feet. Allow 5%-10% waste	270-300 Feet. Allow 5%-10% waste
Mat 800 40"x324 feet long, 1080 sq.ft.	Allow 5%-10% waste	Allow 5%-10% waste

**Technical Data - AUSSIE MEMBRANE 520**

Technical Information	Standard Values	Test Results
<b>Coverage: (Could Vary depending on substrate)</b>	25 sq.ft./Gal. @ 60 Dry Mills	
<b>Service Temperature</b>	-25°F-177°F (-31°C to +80°C)	
<b>Application Temperature</b>	40°F-100°F (+4°C to 38°C)	
<b>Low Temperature Flexibility</b>	-40°F (-40°C)	No cracking at -40°F
<b>Tensile Strength (MPa)</b>	≥ 1.90	2.79
<b>Elongation at break</b>	≥ 550%	726%
<b>Tearing Strength (N/mm)</b>	≥ 12	15
<b>Water Impermeability (at 0.3MPa, 30 minute duration)</b>	Impermeable	Impermeable
<b>Solid Contents</b>	Min 80%	95%+
<b>Tack Free Time (Hours) <sup>1</sup></b>	≤ 12	≤ 10
<b>Curing Time (Hours) <sup>2</sup></b>	≤ 24	≤ 20

- Based on controlled tests. Tack free times will vary based on thickness, temperature, humidity and other job conditions.
- Based on controlled tests. Cure times will vary based on thickness, temperature, humidity and other job conditions

**General Information - AUSSIE MEMBRANE 520**

Shelf Life: (Liquids)	One year from manufacturing date in original unopened packaging.
Storage Conditions:	Store dry/shade at 50-90F. If frozen, discard
Aussie Membrane Color:	Gray

Packaging	Approx Shipping Weights	VOC
4.75 Gal Pails	58 Lbs	75 G/L



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## Applications with Extended Warranties

**Aussie Membrane Installation - Extended Warranty**

Apply the Aussie Membrane using a roller, brush or sprayer. Minimum thickness of the completed, cured membrane shall be as follows:

Installation Guidelines			
Depth Range	Min Thickness of Cured Membrane	Authorized Installer Required	Types of Protection & Drainage System Required
Up to 8 feet deep	60 Mils	Yes	(Drainage Board), + (French Drain)
8-20 feet deep	90 Mils	Yes	(Drainage Board), + (French Drain)
Deeper than 20 feet	Consult AVM Industries before proceeding with membrane installation		
Protection Types:	<p><b>Drainage Board</b> Vertical applications and non-vehicular between slab applications with max 4" thick topping slabs. (AVM Drain Board 6000)</p> <p>All vehicular between slab applications and any horizontal applications with topping slabs thicker than 4" (AVM Drain Board 9000)</p> <p>Other applications might require special drainage board. Consult AVM for details. Drainage board must cover entire area of Aussie Membrane!</p> <p><b>French Drain</b> system or other acceptable means to remove water and release hydrostatic pressure. French Drain System Specs: Must be perforated pipe min 4" diameter and wrapped in geotextile fabric or as required by local building codes engineer.</p>		
Notes:	<ol style="list-style-type: none"> <li>1. Mils thickness specifications are for "DRY FILM" thickness</li> <li>2. French Drain system is not applicable for installations over horizontal surfaces.</li> <li>3. French Drain recommended, but not required for applications less than 18" deep.</li> <li>4. Cant strips at 45° are required at cold joints and other horizontal/vertical intersections.</li> </ol>		