Leaky Tiled Balcony Membrane Installation

This application is suitable for repair of leaky tiled balconies that are ceramic, clay or porcelain and is not the recommended application for stone or concrete tiles. (Refer to installation guide for stone & concrete tiles).

Please ensure all required Personal Protective Equipment (PPE) is worn and used as outlined from the Material Safety Data Sheet (MSDS).

INVENTORY

CLEANING	MEMBRANE APPLICATION	CAULKING & ON-TOP EXPANSION JOINTS
• Pressure washer • Chlorine • Detergent • PPE	• CWM Part 1 • CWM Part 2 • Slip Resistant Aggregate • Rollers small & large • Poles • Matting paste *(depending on finish required)*	• Recommended Joint Adhesive • Caulking Gun • 75mm plastic scraper
GROUTING (if required)	**PPE INCLUDES**	
• Bucket • Grout • Grout Float • Mixing trowel	• Goggles • Gloves • Protective Waterproof Suit • Gum Boots Vapour Mask	

Throughout this guide you will see videos highlighted, they will provide examples of how to go about attending to the items discussed in the paragraph, all videos can be viewed via: https://www.remedialmembranes.com.au/downloads/

Step 1: Identify where the possible leaks are coming from. **Videos 8 & 17**

CLEAN

Step 2: Clean the entire surface to be free from grease, grime, mould, fungi and dust. The easiest way to rid your surface from all of these nasties is with a high-pressure water cleaner and appropriate chemicals. I.e., for mould and fungi: chlorine works best; for grease: detergent works best. Efflorescence: Hydrochloric Acid **(Video 16)** is preferred. Follow Personal Protective Equipment (PPE) listed on the label of the chemical being used. **Video 19** Surfaces should be thoroughly cleaned and flushed to remove detergent residues.

PREPARATION

Step 3: If you identify some loose tiles, you can adhere these to the sub-straight with Recommended Joint Adhesive as this is a neutral cure adhesive and it will not need to fully cure before application of the Clear Waterproofing Membrane (CWM) **Video 15**

Please note: Any time you remove a tile and the sub-straight is soft to touch like a sponge, you may require a specialist to investigate as your water damage may have gone into the building materials and require additional repair prior to membrane application.

Step 4: If any grout is missing replace the missing grout with as close a match as you can find and allow it to cure. **Video 14**

Step 5: Cut in expansion joints if there are not any installed or if there are not enough. Anytime you see a crack that begins from one side and continues to the other, you should install an in-joint expansion joint **(Video 13).** In general, we look for expansion joints to be installed every 4.5 lineal meters. With one exception; if the tiled balcony is on a concrete slab that has been down for more than seven (7) years and there are no cracks, then you are not required to install any as the slab has already gone through its movement stage and cutting in expansion joints could result in tiles popping.

Step 6: Allow the balcony surface to completely dry. **Video 20**

Step 7: Remove waste grate (if possible), clean inside the pipe, remove any efflorescence found by putting a sponge further down the drain to collect debris and use a hammer and screwdriver to clean it back.

Step 8: Check the weather conditions to ensure the forecast is for a sunny day. If your installation occurs in the cooler months and does not get direct sunlight, we recommend mechanically drying the area to ensure excess water is removed from the sub-straight. Purchase some halogen lights/lamps from the local hardware usually around $10ea and position them over the area for the two days drying time.

Step 9: Vacuum the surface and remove shoes.

CAULKING

Step 10: Caulk all the junctions (**Video 18**) in between the walls and the floor and above the skirting tile if there is one. Try and identify where the leak/s may be coming from, look for cracks in junctions between the wall and the floor and cracks through the floor where expansion might have occurred over time. Fill these cracks and all existing silicon joints with recommended Joint Adhesive (this is not required to cure before CWM application).

Step 11: **Framed Substrates** - all applications that <u>are not</u> a poured solid concrete slab.

Framed sub-straights move continuously and all over the surface, so intermittent control joints are not sufficient; use the recommended joint adhesive and install clear control joints over all the existing grout joints.

Squeeze the recommended joint adhesive over the grout joint, use a 75mm or 3-inch plastic scraper and at a 90-degree right angle scrape the Clear Joint Adhesive over the grout joint making sure not to leave any raised profiles as these will be seen after membrane application. By installing these over the existing grout joint, you will end up with a control joint that is thinner than it is wider, providing maximum lateral flexibility. This will flex with the ongoing movement of the framed sub-straight and if installed correctly, will be unnoticeable after the membrane is applied. **Video 10 & 11**

If you have a concrete slab construction **Video 12**

Step 12: **Sealing the waste grate**; use the Recommended Joint Adhesive, join the underside of the waste grate to the plumbing pipe then waterproof to prevent water that goes down the drain being reabsorbed in the screed when it goes down the drain.

APPLICATION

Finish	**Gloss**	**Satin / Matte**
1st Coat	Part 1 + Part 2	Part 1 + Part 2
2nd Coat	Part 2 + Part 2 + Aggregate	Part 1 + Paste + Aggregate **NO Part 2**

Step 13: **Please Note:** if you are doing a Satin or Matte finish then you will need to mix the first coat and second coat separately. The second coat will <u>not</u> include part 2 so please measure out how much membrane you will need for the first coat. 1l of part 1 & 100ml Part 2 will do up to 6m2 (single coat).

Externally, Mix CWM2 liquid slowly into CWM1 liquid, mechanically stirring to ensure proper combining of the two parts. Always add CWM 2 to CWM1. Allow the mix to stand for 5 minutes before applying. Once mixed, the membrane has a cure time of 36 hours, (weather dependent), so only mix up what you will use each time. We recommend installing both coats in one day depending on the environment, taking all care to avoid streaking. **Video 22**

Dry film thickness should never drop below 125microns (.125mm) in areas 100mm directly adjacent to junctions between wall and floor and any area that is prone to

movement; like cracks and expansion joints, product dry thickness should be increased to 500 microns (.5mm) and applied over the joint adhesive

To prevent streaking; In Tropical areas don't install the membrane in direct sun, in other regions, ensure the surface temperature is around 26C or 79F. If necessary, install the membrane outside of business hours to ensure streaking does not occur. **Video 23**

Step 14: Apply the CWM in all the junctions between the wall and the floor using a paintbrush or small roller as high as required, but at least 100mm or 4-inches high, and 100mm (4-inches) in from the floor perimeter.

Please note: The underside of a doorsill is a known weakness, apply recommended Joint adhesive at the point where the wall meets the flashing and waterproofing to the Joint Adhesive and put flashing over.

If walls are weatherboard, remove (if possible) the last weatherboard sheeting to apply product up to the underside and refix.

Step 15: Once the first perimeter coat is dry and clear, **apply the second perimeter coat** in the same manner. (If you are doing a Satin or Matte finish you will mix only CWM Part 1 & Satin or Matte Paste for the perimeter as you don't need the aggregate in the vertical application. Be sure to mix the paste to be thoroughly combined before adding it to the CWM Part 1. No CWM Part 2 is to be used in the second coat unless you are doing a gloss finish.)

Step 16: Apply a large amount of CWM to the paint roller and move around the surface in one direction, ensure complete coverage but do not leave puddles of the product. (Check additional information video for the method of applying the membrane.)

Ensure the *first coat has completely cured* and is fully transparent, ensure that there is no visible whitening, especially in the junctions between wall and floor.

Step 17: Combine the contents for the second coat refer to table below application and install anti-slip aggregate. (*Reminder:* If you are doing a Satin or Matte finish you will mix only CWM Part 1 & Satin or Matte Paste for the perimeter as you don't need the aggregate in the vertical application. Be sure to mix the paste to be thoroughly combined before adding it to the CWM Part 1. No CWM Part 2 is to be used in the second coat unless you are doing a gloss finish.)

Step 18: Apply the second coat in a diagonal direction to the first coat. Each time you put your roller in the tray, push the roller to the bottom to constantly mix the aggregate through evenly.

Each time you pour the membrane from the pail to the tray, remix as the aggregate is heavy and will settle on the bottom. Please ensure you have adequate dry-time prior to the temperature dropping at night as dew is water and cannot sit on the product until it has completely cured (If necessary, use fans to dry surface quickly).

Step 19: Check the outside returns of the balcony to see if the membrane needs to be wrapped over the edge and down the face to prevent water running off the edge gaining access to the substrate.

Step 20: Twenty-four (24) Hours after the application, the membrane is now trafficable, however, DO NOT add pots or outdoor furniture for seven (7) days to allow complete curing of the product.

Step 21: Always follow customer care instructions.

EXCESSIVE MOVEMENT CAN CREATE CRACKS AFTER MEMBRANE INSTALLATION

The beauty of the Clear Waterproofing Membrane being a topical membrane, is that if the cracks do appear they are noticeable, and are easy to patch repair. If the crack is 1mm or more you can grout it in and allow for it to fully cure. For smaller cracks apply the clear caulking over the section in the same fashion as an on top expansion joint. There is no need to recoat the entire surface just patch repair the affected area with the Clear Waterproofing Membrane which will adhere to itself.