

ACTFLEX 988 CWP

TECHNICAL DATA SHEET

TWO-PART FLEXIBLE CEMENTITIOUS ACRYLIC HYDRO-STATIC WATERPROOFING MEMBRANE

13/08/2023

DESCRIPTION

ACTFLEX 988 CWP is a two-part flexible cementitious modified acrylic polymer membrane formulated for various waterproofing applications. It is designed for use as an under-tile anti-efflorescence membrane, a positive and negative hydrostatic pressure barrier for above-ground water tanks, waterproofing below-grade retaining walls, PVC panel waterproofing, preventing rising damp, and protecting cement screed areas. ACTFLEX 988 CWP is a class 11 Waterproofing membrane and complies AS3740.2021 and AS4654.2 2012.

ROLLER OR BRUSH GRADE

COLOUR

Khaki Green.

PACKAGING (weight)

- 20kg kits & 10kg Kits: Consisting of 2 weighed parts per coat.
- Part A liquid & Part B Powder (1:1.5).

ADVANTAGES

- Flexible over a wide range of temperatures.
- Hydro-Static Moisture barrier.
- Prevents rising damp and the formation of efflorescence.
- Prevents water ingress to cement screed under tile areas.
- Meets class 11 requirements for AS4654.1 Wet area Membranes.
- Is to be applied over cured damp surfaces.
- Can be used for internal and external use.
- Non-staining.
- Non-Flammable, Non-toxic.
- Meets Green Building Council of Australia Greenstar requirements IEQ-13, IEQ-11.
- Compatible with most tile adhesives.
- Easy to clean-up with water.
- Excellent adhesion and easy to use. Does not require bonding agents.
- No Priming required.
- When applied directly to the substrate, the cured membrane can withstand 350kPa of hydrostatic pressure which equates to 35-metre head of water.
- Excellent build properties enable application to both horizontal and vertical surfaces.
- Can be applied to PVC panels which have been abraded.
- Very strong cured finish.
- Reaches sufficient cure in 72 hours @ 25°C 50% RH after final coat, allowing for fast tiling.
- Can be applied to cement screed after 3 days (depending on thickness).

ACTFLEX 988 CWP PROPERTIES

Form	2 Component Cementitious Powder & Liquid Per Coat	Recoat Time At 25°C 50%RH	6 Hours
Mixing Ratio	Part A Is 1kg Liquid To		Confined Underground Areas Require Min 24 Hrs
Membrane Classification	Part B Is 1.5kg Powder (1:1.5)	Tack Free Time At 25°C 50% RH	4 Hours
	Membrane Classification Class II		Confined Underground Areas Require Min 24 Hrs
Colour	Khaki Green	Full Cure Time At 25°C 50% RH	72 Hours At 1.5mm DFT
Solids Contents	65% (+/- 2%)		Confined Underground Areas Require Min 7 Days
Elongation At Break	218% (+/- 5%)		Areas In Permanent Contact With Water Require 10 Days +
Tensile Strength	MPa 1.8	Application Temperature	10 - 26°C
0.3MPa 30min	.05	Shelf Life	9 Months When Stored In The Original Un-Opened Elevated Container, Between 10° - 22°C.
Pot Life	Approx. 2hours @25°C		
Foot Trafficable	After Full Cure		

FALLS TO DRAINS

It is advisable to apply ACTFLEX 988 CWP on surfaces with a gradual incline towards drainage outlets to prevent water accumulation. The recommended slope for this purpose is as follows:

- For indoor wet spaces: A slope of 1:80, translating to a 12.5mm decline over a distance of 1 meter.
- For outdoor balconies, rooftops, and similar areas: A slope of 1:100, which results in a 10mm descent over a span of 1 meter.

PREPARATION

- Coating-Free Surface: Make sure that the surface is devoid of any coatings like paints, sealers, or primers, unless specifically necessary, such as in salt treatment areas.
- Soundness and Stability: The surface must be in a stable and solid condition, ensuring its integrity.
- Thorough Cleaning: Remove all traces of grease, dust, mould, loose particles, flaking material, and any friable substances from the surface.
- Salts and Efflorescence: Eliminate any salts and efflorescence present on the surface.
- Cement Screed Condition: Verify that the cement screed is both solid and level, devoid of voids, protrusions, and cracks.
- Concrete Curing: Newly poured concrete must be allowed to cure for a minimum of 28 days, following the guidelines of AS 3958.1-2007.
- Rendered Surface Cure: If the surface has been rendered, ensure it is allowed to cure for at least 7 days, varying based on its thickness.
- Cement Screed Moisture: Cement screed must possess a smooth wood trowel finish and be allowed to dry for a minimum of 48 hours, up to 5 days, depending on factors like thickness and temperature. The moisture content should not exceed 4% before applying ACTFLEX 988. In the case of dry cement screed or render, lightly dampen it using a water spray before application.

WATER HOLDING FACILITIES or CONSTANT WATER CONTACT APPLICATIONS

In scenarios involving water and detention tanks, a comprehensive 3-coat system is recommended due to their unique characteristics. Since these areas typically lack sufficient aeration and exhibit high humidity levels, mechanical ventilation is essential to facilitate drying.

1. First Coat Application: Apply the initial coat of ACTFLEX 988 CWP onto the surface. Allow this coat to thoroughly dry for a minimum of 24 hours.
2. Preparation for Second Coat: Before proceeding with the second coat, apply V-TECH MS POLYMER joint sealant to horizontal and vertical junctions. These include areas like wall/floor interfaces, hobs/walls, corner junctions, water stops, and drain outlets. Allow the sealant to dry completely.
3. Additional Coat over Joint Sealant: Over the cured V-TECH MS bond breaker, apply an additional coat of ACTFLEX 988 CWP. While this coat is still wet, embed AT-Mesh tape. It's crucial to ensure a firm bond between the tape and substrate by meticulously smoothing out any bubbles or wrinkles and carefully molding it into corners. Allow this layer to dry and set.
4. Second Coat Application: Apply the second coat of ACTFLEX 988 CWP to all remaining surfaces. Allow this coat to dry for a minimum of 24 hours.
5. Final Coat Application: Proceed to apply the third and final coat of ACTFLEX 988 CWP. After this application, allow the entire system to cure for a minimum of 7 days. For areas in continuous contact with water, such as water tanks, extend the curing time to 10 days. Mechanical ventilation should be employed throughout this curing period to ensure optimal results.

LIMITATIONS

- Always apply to cured bare substrates. Do not apply to surfaces that are coated with paints, sealers, renders, efflorescence, etc.
- Always remove all salts and efflorescence prior to applying ACTFLEX 988 CWP.
- Curing time will be adversely affected in situations where relative humidity is >75%. At the lower temperatures, the rate of cure will slow down considerably and at higher temperatures the working life of the mixed composition will shorten.
- Do not apply in temperatures below 10° or over 26° or if rain threatens.
- For wet area applications, ACTFLEX 988 CWP is to be used in conjunction with a below screed waterproofing system and not as a main waterproofing application.
- Not suitable for use in chlorine environments.
- Not compatible with all silicon-based products.
- Is not designed to fill holes or structural cracking more than 500 micron.
- Flexible and can withstand normal building movement but it has limited elongation and hence will not tolerate shrinkage or cracking of the substrate.
- Cracks and gaps must be independently sealed and waterproofed.
- Care should be taken when coating over movement joints as in some cases the amount of movement may be more than the capability of the membrane.
- ACTFLEX 988 CWP can be left uncovered in internal areas exposed to light foot traffic such as plant rooms where foot traffic is only required for maintenance purposes. It is not designed to accept daily foot traffic, footwear that can pierce the membrane or machinery.
- **Do not apply onto substrates with surface temperatures under 10°C.**

PVC PANELS

Waterproofing Process for PVC Panels:

1. Enhanced Waterproofing Bond: The objective is to establish a flexible, robust waterproofing bond between the panel sheets.
2. Surface Preparation: Begin by roughening the PVC panels using sandpaper. This process creates a solid mechanical key, ensuring optimal adhesion.
3. Surface Cleaning: Thoroughly clean the panel surface to eliminate any dirt, oil, grease, or dust. A clean, dry surface is essential for proper adhesion.
4. Initial Coat Application: Apply the first coat of ACTFLEX 988 CWP onto the prepared PVC surface. Allow this coat to dry fully.
5. Joint and Corner Treatment: Address panel joints and corner junctions by applying a layer of MS bond breaker or self-adhesive Butynol tape. Ensure proper adhesion by using a pressure roller, molding the tape securely into corners.
6. Second Coat Application: Apply a second coat of ACTFLEX 988 CWP onto the PVC panels. Allow this coat to cure effectively.

GENERAL & OVER SCREED APPLICATIONS

- Drying time between coats at a temperature of 25°C and a relative humidity of 50% is approximately 6 hours. It is important to allow sufficient drying time before proceeding with the next coat.
- Ensure complete curing before proceeding with tiling or applying an over-coating.
- Apply each coat with an approximate dry film thickness of 0.5mm.
- For the final dry film thickness, aim for a range of 1mm to 1.5mm, achieving the desired protective and waterproofing properties.

MIXING AND APPLICATION

ACTFLEX 988 CWP is a carefully measured two-part mixture applied per coat. To ensure optimal results, adhere to the following steps:

1. Individual Coat Mixing: Each coat should be mixed separately. Avoid combining the components prematurely.
2. Application Angle: Successive coats should be applied perpendicular to the previous coat, ensuring even coverage.
3. Measured Mixing Quantity: Only mix the quantity required within the designated pot life. Avoid excessive mixing, which can introduce unwanted aeration.
4. First Coat Mixing: Pour Part A Liquid of ACTFLEX 988 CWP's first coat into a clean mixing container. Gradually add Part B Powder while using a low-speed mixing drill. Continue mixing for approximately 2 minutes or until achieving a uniform, lump-free consistency.
5. No Water Addition: Do not add water to the mixture. Maintain the prescribed mixture composition.
6. Surface Dampening: If the surface appears excessively dry, slightly dampen it using a mist or spray of clean water.
7. Application to Prepared Surface: Apply the mixed ACTFLEX 988 CWP material onto the prepared surface. This can be done using a roller or brush.

UNDERGROUND/LANDSCAPING AREAS

Always protect the cured membrane prior to clean fill. The installation of ballast, such as back filler, river pebbles or similar loose laid unbound coverings must be isolated from the membrane by protection board or a compatible drainage cell and filter fabric system.

TILING

- ACTFLEX 988 CWP is compatible with most tile adhesives.
- Tiling can commence after full cure of ACTFLEX 988 CWP.
- When tiling direct to the membrane, tilers must "notch trowel" the tile adhesive to all wall and floor areas. Spot bonding may then be applied to reach the required levels.

COVERAGE, DRYING AND CURING

Coverage, drying and curing rates are given as a guide only as they can be affected by surface porosity, humidity, temperature, climate conditions, ventilation, application technique and dry film thickness. ACTFLEX 988 CWP is a minimum 2-coat system. For below ground or when permanently in contact with water applications use a minimum 3 coats system. As a guide ACTFLEX 988 CWP 20kg pail will cover approx. 2 coats of 12m², and a 10kg pail will cover approx. 6m². Coverage rate of 1.66m²/kg is based on a total DFT of 1mm and does not allow for wastages.

APPLICATION

	DFT RATE	Number Of Coats	Recoat Time At 25°C 50%R.H.	Full Cure Time At 25°C 50%R.H.
Over Screed	1mm Or 1000 Microns	2	6 Hours	72 Hours
PVC Panel	1mm Or 1000 Microns	2	6 Hours	72 Hours
Underground	1.5mm Or 1500 Microns	3	24 Hours	7 Days With The Use Of Mechanical Ventilation
Permanent Contact With Water	1.5mm Or 1500 Microns	3	24 Hours	10 Days With The Use Of Mechanical Ventilation



ACTECH PROTECTIVE COATINGS

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CURING

Time before re coating: Complete cure time:

- 6 hours at 25°C and 50% relative humidity for re-coat time.
- At least 72 hours Full cure at 25°C and 50% for Ventilated areas
- 7 days full cure at 25°C and 50% for confined spaces.
- 7-10 days or more at 25°C and 50% relative humidity for areas with constant water exposure.

In environments like underground basements or enclosed spaces such as water tanks, where airflow is limited and humidity is higher, the curing process is extended. Adequate artificial ventilation is recommended in such cases to facilitate proper curing and counteract the effects of humidity.

CLEAN UP

- Wash all equipment in soapy water immediately after use.
- Avoid spillage as it is difficult to remove entirely from porous surfaces.
- **DO NOT** discharge into sewer or waterways
- **DO NOT** allow wash water from cleaning or process equipment to enter drains.

STORAGE

- 12 months when stored in the original, unopened packaging in a cool dry place 10-22°C & 50% R.H.
- Do not use if bags are damaged.
- Keep containers in a well-ventilated place, away from sunlight, moisture and tightly closed

SAFETY - WHEN HANDLING DO NOT EAT, DRINK OR SMOKE

ACTFLEX 988 CWP is hazardous and may cause skin and/or eye irritations. Powder contains cement and until fully wet the inhalation of powder dust should be avoided. Always use in a well-ventilated area and wear Personal Protection Equipment (PPE). Use gloves, safety boots and protective eyewear (against splashes). Use breathing respirators at all times. Wash hands immediately after use and before breaks. Change soiled work clothes and wash hands before breaks and after finishing work. **DO NOT** allow clothing wet with material to stay in contact with skin. KEEP OUT OF REACH OF CHILDREN. Powder contains cement and until fully wet the inhalation of powder dust should be avoided. In case of eye contact, rinse with plenty of water: If inhaled, remove to fresh air: if swallowed (do **NOT** induce vomiting), and immediately contact Doctor or Poisons Information centre on 131 126 (AUS) and 0800 764 766 (NZ). **IN TRANSPORT EMERGENCY DIAL 000 – POLICE-FIRE BRIGADE** Local regulations as well as health and safety advice on packaging labels must be observed. For more information, please download a copy of the SDS from www.thewaterproofingshop.com.au

Data Sheet

This Technical Data Sheet and the Material Safety Data Sheet (SDS) may be revised at any time to comply with relevant changes to the Australian Standards or to include changes to current technology. Always read the current SDS and TDS carefully prior to use as application and performance data may change from time to time. It is always best to request a copy of the latest technical data from Actech Protective Coatings by calling 02 8021 3517 or emailing admin@actechpc.com.au.

Data provided is typical but does not constitute a full specification. This should be sighted from the company for specific projects.

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