

# ACTFLEX EP 250

## DESCRIPTION

ACTFLEX EP 250, a bipartite aqueous epoxy polyamide composition, serves as a potent barrier coating. Designed to confer resistance to water infiltration, thwart rising damp occurrences, prevent efflorescence formation, and endure hydrostatic pressures, it showcases a comprehensive protective profile. Its approval for deployment with portable potable water has been authenticated through autonomous assessments, attesting to its compliance with the specifications set forth by AS4020:2005 and SS375-2001 standards. Exhibiting a versatile application scope, ACTFLEX EP 250 functions as a priming and sealing agent on concrete, masonry, and analogous cementitious surfaces. By functioning as a hydrostatic damp-proofing barrier, it engenders an environment conducive to the application of moisture-sensitive coatings, further extending its utility as a hydrostatic moisture barrier for negative side surfaces. This formulation is characterized by its non-flammability, minimal olfactory emissions, and compatibility with recently cured green concrete, providing an adhesive matrix for degraded and dusty concrete substrates, bolstering structural integrity.

## ROLLER OR BRUSH GRADE

## PACKAGING (weight)

- 4L kit (2L Part A & 2L Part B)
- 20L kit (10L Part A & 10L Part B)

## RECOMMENDED APPLICATIONS:

- As a hydrostatic pressure resistant moisture barrier (under waterproofing membrane) to protect against dampness penetration through to the interior of walls and floors.
- As a low water vapour transmission coating in the building and construction industries and as a barrier/seal coating over damp concrete.
- As a hydrostatic moisture barrier coating over damp, concrete prior to over coating with conventional levelling compounds, carpets and tile adhesives.
- As a barrier seal coating over damp or efflorescence producing concrete prior to over coating with conventional building paints and waterproofing membranes. (Surface must be free of efflorescence and all coatings prior coating).
- As a hydrostatic moisture barrier on the negative side in below grade surfaces such as basements, tunnels, lift wells, retaining walls and carpets prior to over-coating with waterproofing membrane.
- As a primer for ACTECH's liquid applied waterproof membranes.

## ADVANTAGES

- Non-flammable and negligible odour.
- Can be applied to damp surfaces.
- Very strong cured finish.
- Easy to use, water clean-up.
- When applied directly to the substrate the cured membrane will withstand 250kPa of hydrostatic pressure which is equivalent to a 25-metre head of water.
- Excellent adhesion to old, new and green concrete, stone, timber, masonry and concrete blocks.
- Conforms to the requirements of: Building Code of Australia 4020-2005 for use in contact with portable water.
- Prevents rising damp and the formation of efflorescence when applied in a two-coat system.
- Safe for use around food and water.
- When applied directly to the substrate the cured coating will withstand 250kPa of hydrostatic pressure which is the equivalent to a 25m head of water.
- ACTFLEX EP 250 will be ready for foot traffic after 24 hours at 25°C and 50% R.H.
- Easy clean up using water.
- Can be over coated using almost any decorative or industrial paint.
- Low VOC
- Meets Green Building Council of Australia Greenstar requirements IEQ-13, IEQ-11

## LIMITATIONS

- Tiling can commence after 24 hours cure of ACTECH EP 250 although and should not exceed a maximum of five days. Installer is to ensure that there is no surface contamination during this period. Sand Binding of the final wet coat is required.
- The product will cease to cure below 10°C.
- Curing time will also be adversely affected in situations where relative humidity is >85%.
- In enclosed areas, ventilation must be provided during curing cycle to enable adequate evaporation of the water. Longer drying and curing times will be needed.
- Care should be taken when sandwiching adhesives between ACTFLEX EP 250 and floor coverings to ensure the water vapour transmission of the covering is sufficient to allow the solvent to escape.
- ACTFLEX EP 250 is not classified as a trafficable membrane.
- ACTFLEX EP 250 is not UV resistant and should not be exposed to UV light.
- ACTFLEX EP 250 is not classified as a trafficable membrane.

## TECHNICAL/PERFORMANCE DATA

<b>Colour</b>	Grey	<b>Full Cure</b>	7 Days At 25°C And 50% R.H.
<b>Surface Appearance</b>	Semi-Gloss Progressing To Matt Over Time.	<b>Waterproofing Recoat Time</b>	24hrs After Final Coat@ 25°C And 50% R.H. (Longer In Confined Areas)
<b>Solids</b>	44%.	<b>VOC Content</b>	26g/L.
<b>Mixing Ratio</b>	1:1 (Part A:/Part B) By Volume.	<b>Wet Film Thickness</b>	300 Microns (0.3mm) Per Coat.
<b>Coverage</b>	Must Be Applied At A Rate Of 1.5m <sup>2</sup> /L In Total (Equivalent To Two Coats At 3.0m <sup>2</sup> /L Per Coat) To Achieve An Effective Moisture Barrier.	<b>Application Temperature</b>	10°C – 26°C.
<b>Recoat Time</b>	4 Hours At 25°C And 50% R.H.	<b>Pot Life</b>	2 Hours Approx. At 25° C. 1 Hour @ 35°C.
		<b>Kpa Pressure</b>	250kpa

**Minimum 3 days cure when over coating with adhesives and solvent coatings.**

The recommended WFT specified produces a nominal Dry Film Thickness DFT of 150 microns (0.15mm) per coat or 300 microns (0.3mm) for two coats on the surface. The apparent dry film thickness will reduce depending on the porosity of the substrate, however the product absorbed by the substrate still forms part of the waterproofing function.

## APPLICATION

### SURFACE PREPARATION:

- Ensure treated surfaces are structurally sound and devoid of dirt, grime, grease, oil, or wax-like substances, as well as standing and running water.
- Remove existing coatings, adhesives, and efflorescence to expose open-pore surfaces for optimal bond strength and hydrostatic pressure resistance.
- Address holes, non-structural cracks, or surface deformities by utilizing a concrete repair system, allowing curing before coating application.
- Pre-treat dry, porous surfaces by applying a fine mist of clean water before the introduction of ACTFLEX EP 250.
- Avoid application on substrates exhibiting surface temperatures below 10°C.

### PRODUCT PREPARATION:

- Mix each component separately.
- Thoroughly combine the two components in a 1:1 ratio by volume until achieving a uniform mixture.
- Limit mixing to the required quantity within the specified pot life and prevent excessive aeration during blending.
- On extremely dry and porous surfaces, apply a fine mist of clean water prior to the application of ACTFLEX EP 250.
- Allow for a 24-hour curing period before the application of water-based adhesives, mortars, levelling compounds, decorative coatings, or 3 days if overcoating with adhesives and solvent coatings.

### APPLICATION METHOD:

- A single-coat application is typically utilized as a primer for subsequent ACTECH PROTECTIVE COATINGS Liquid Applied Membranes.
- A dual-coat application is generally employed for creating a moisture barrier, addressing efflorescence and rising damp requirements, or for negative side applications involving hydrostatic pressure.
- For spray application of ACTFLEX EP-250 (Hydro Epoxy), incorporating 10% water during the initial coat aids in surface penetration and spray effectiveness.
- Avoid application on substrates with surface temperatures below 10°C.
- Floors: Apply the material using a squeegee, stiff nylon broom, or roller to ensure thorough integration into the prepared surface. Employ a medium to long nap roller to achieve the desired coverage for the final finish.
- Walls: Utilize a roller to apply the product, ensuring comprehensive integration into the prepared surface and achieving the intended coverage.

### THINNING:

The first coat should be thinned with water, as required depending on the porosity of the surface to be coated (up to 20% for dense surface to 5% for more porous surfaces) to ensure optimum penetration. Thinning of the second coat should be avoided. Always ensure that the required coverage ratios are adhered to.



## ACTECH PROTECTIVE COATINGS

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## INSTALLATION

- Apply each successive coat perpendicular to the prior coat's orientation.
- Take care to effectively incorporate the material into the substrate to eliminate voids and prevent pinholes.
- For dust sealing, a minimum of one coat is recommended.
- For tasks involving creating an efflorescence barrier, addressing rising damp, establishing a moisture barrier, and waterproofing negative side walls, a minimum of two coats should be administered.
- Ensure consistent material application to maintain the required coverage and wet film thickness of 0.3mm per coat.
- For single-coat systems, attain a total coverage rate of 3m<sup>2</sup>/L per coat, leading to an optimal final dry film thickness of 0.15mm (150 microns).
- For dual-coat systems, achieve a total coverage rate of 1.5m<sup>2</sup>/L in total (equivalent to 3m<sup>2</sup>/L per coat), yielding an optimal final dry film thickness of 0.3mm (300 microns).
- If the specified coverage rate isn't met in two coats, additional coats should be applied to attain a consistent total coverage rate of 3m<sup>2</sup>/L.
- ACTFLEX EP 250 will permit light foot traffic after 24 to 48 hours.
- Allow for a 4-hour interval between coats and allocate 24 hours at 25°C and 50% relative humidity for curing before the application of water-based adhesives, mortars, levelling compounds, decorative coatings, or other surface treatments.
- Exercise caution to prevent any harm to the ACTFLEX EP 250 coating during subsequent treatments.

## TILING

Prior to tiling, ACTFLEX EP 250 can be applied to screeds, renders or levelling compounds after 3-4 days @ 25°C & 50% R.H in 2 coats at a coverage rate of 3m<sup>2</sup>/L. Whilst the final coat is wet, clean dry sand of 0.5mm diameter shall be broadcast over the surface at a rate of 700g/m<sup>2</sup> to achieve at least 90% coverage.

After 24 hours @ 25°C and 50% R.H. cure the excess sand shall be swept and vacuumed from the surface. The same instructions are to be used if tiling or levelling compounds are to be used over the ACTFLEX EP 250

## CLEAN UP:

Wash all equipment in soapy water immediately after use. Avoid spillage as it is difficult to remove entirely from surfaces.

**DO NOT** discharge into sewer or waterways.

**DO NOT** allow wash water from cleaning or process equipment to enter drains.

## SAFETY -WHEN HANDLING DO NOT EAT, DRINK OR SMOKE

ACTFLEX EP 250 is hazardous and may cause skin and/or eye irritations. 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 **DO NOT** allow clothing wet with material to stay in contact with skin. In case of eye contact, rinse with plenty of water. If inhaled, remove to fresh air: if swallowed, 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](http://www.thewaterproofingshop.com.au) KEEP OUT OF REACH OF CHILDREN.

## 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](mailto: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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## FLOORING APPLICATIONS

Where concrete subfloors are damp (as defined in AS1884-2012 as exceeding 75% relative humidity when measured using ASTM F2170 methodology for resilient flooring, or exceeding 5% for other installations such as tiling and liquid applied membrane application, ACTFLEX EP 250 can be applied as a moisture barrier – apply two coats at 3.0m<sup>2</sup>/L per coat. The second coat can be sand seeded as is done for tile applications.

As a moisture stop for 'green concrete' not subject to rising damp or permanent moisture – apply. 2 coats of ACTFLEX EP 250 applied at 3m<sup>2</sup>/L per coat.

## STORAGE:

24 months when stored in the original, unopened packaging in a dry place @ 25°C & 50% R.H.

Keep containers in a well-ventilated place and tightly closed.