

ACTFLEX 929 SPU

DESCRIPTION

ACTFLEX 929 SPU is a Class III high performance, tough, highly flexible polyurethane waterproofing membrane for use in internal and external under tile applications. ACTFLEX 929 SPU is a single component membrane which cures by reaction with the atmospheric moisture to give a tough elastomeric waterproof membrane. It is supplied as a thixotropic liquid which is easily applied at the recommended thickness to both vertical and horizontal surfaces.

ROLLER OR BRUSH GRADE

COLOUR

Grey

PACKAGING (weight)

• 15L (20kg)

STANDARDS COMPLIANCE

- Meets the requirements of AS3740:2021 (Waterproofing of Wet areas within a Domestic building) by complying with AS/NZ 4858 (Wet Area Membranes as a Class III membrane).
- Meets the requirements of AS4654.2 2012 – "Waterproofing membranes for external above ground use"

ACTFLEX 929 SPU IS SUITABLE FOR THE FOLLOWING APPLICATIONS:

- One-component formulation: reducing application time and complexity.
- Moisture-cure technology: Cures by reacting with ambient moisture, ensuring consistent and reliable performance.
- Excellent adhesion: Bonds well to a variety of substrates, including metals, plastics, ceramics, and many others.
- Superior durability: Resistant to weathering, ageing, providing long-lasting results.
- Flexible: Exhibits good flexibility, accommodating for substrate movement and thermal expansion.
- Non-sagging: Holds its shape without slumping or dripping during vertical applications.
- Roller and brush grade for convenient and precise coating
- Suitable for both indoor and outdoor applications
- Root Resistant

The high elasticity, excellent bond and low water permeability of ACTFLEX 929 SPU make it ideal for a wide range of applications:

- Bathrooms, laundries and wet areas.
- Foundations, basements, ground floors, suspended slabs.
- Roof terraces and roofs (non - exposed), balconies, patios.
- Planter boxes, above ground pits.
- Bridges, walkways, sub stations, parking decks.
- Industrial floors and warehouse surfaces
- Commercial and residential floors
- Garages and workshops
- Concrete and metal surfaces
- General maintenance and repairs

ADVANTAGES

- Pitch free.
- Non-staining.
- One component.
- Does not re-emulsify after proper curing.
- Immersion tolerant.
- Chemically resistant.
- High strength.
- Root resistant.
- After curing is permanently flexible (tested to class 111) with high tensibility.
- Excellent build properties enable application to both horizontal and vertical surfaces.
- Can be applied to a wide range of substrates.
- Once cured will accept light foot traffic.
- Easy application by roller, brush or squeegee.
- Outstanding barrier properties ensure protection against corrosive soil conditions.
- Excellent resistance to embrittlement.
- Reaches sufficient cure 48 hours after final coat (at 25°C 50% R.H.), allowing for fast placement of mortar beds and screeds.

Can be used over the following substrates * Priming required on all substrates

- Concrete - Cured for min. 28 days and left with a wood trowel finish.
- Renders and Screeds - Cured for min. 7 days and left with a wood trowel finish.
- Fibre Cement Sheets - Walls (min. 6mm) Wet area grade only.
- Compressed Fibre Cement (min. 15mm) Wet area grade only.
- Brickwork, Block work, masonry, asbestos, sycon, cement, timber, metal and PVC surfaces.

We do **not** recommend applications of ACTFLEX 929 SPU be applied on particle board, platform floor sheeting, yellow tongue or chipboard as they are not a suitable substrate for wet areas. This should be replaced with Wet Grade CFC sheeting.

ACTFLEX 929 SPU PROPERTIES

Membrane Classification	Class 111	No Fatigue Cracking	Pass
Colour	Grey	Recoat Time At 25°C 50%RH	24 Hours And A Maximum 48 Hours
Solids Contents	85% (+/- 2%)	Tack Free Time At 25°C 50% RH	12 Hours In An Aerated Area
Density	1.1 - 1.3 G/Cm ³	Full Cure Time At 25°C 50% RH	48 Hours At 1.2mm DFT In An Aerated Area
Elongation At Break	>600%	Application Temperature	10 - 26°C
ASTM E96 Moisture Vapour Transmission	Pass	Shore Hardness A	55-60
Physical Or Chemical Change	Chemical Cure By Reaction With Atmospheric Moisture	Appearance	Viscous Liquid
		Shelf Life	12 Months In Unopened Containers

CHEMICAL RESISTANCE

ACTFLEX 929 SPU is resistant to a wide range of, alkalis, waterborne salts, household detergents and household bleach-based cleaning products and is resistant to biodegradation.

APPLICATION INSTRUCTIONS

Internal wet areas should be waterproofed in accordance with AS3740. External wet areas should be waterproofed in accordance with AS4654. ACTFLEX 929 SPU must be applied to totally dry surfaces. Use a moisture reading if doubt exists.

LIMITATIONS

- ACTFLEX 929 SPU is not suitable for exposure to sunlight or UV and must be protected from sunlight immediately after full cure.
- Direct adhesion of tiling to cured membrane is not recommended.
- Ensure membrane is fully cured for at least 48 Hours @ 25°C at 50% R.H. after final application before tiling, backfilling, topping or immersion in water.
- Not compatible with all silicon-based and bitumen surfaces/products.
- Not recommended for constantly submerged applications such as swimming pools and ponds.
- Not suitable for use in chlorine environments.
- It is not a vapour barrier and is not designed to withstand negative side substrate head of pressure.
- ACTFLEX 929 SPU must be applied to a dry surface which is free from dampness.
- Do not apply if rain threatens.
- 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 929 SPU 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.

PREPARATION

Good preparation is Essential. Allow all prep work to dry/cure before proceeding.

- All surfaces must be installed according to manufacturer's instructions and relevant Australian Standard(s) and be structurally sound
- Surface must be clean, dry, smooth and free of oils, grease, wax, mould, dust, curing compounds, release agents, coatings, adhesive residues, loose particles, rust, paints, efflorescence and are uncontaminated by preceding trade activities to leave a sound, clean surface.
- Remove any high points and protrusions from the surface that may pierce the membrane.
- Make good any defects such as, blowholes and surface imperfections using an appropriately high strength non-shrink mortar.
- Ensure all applied surfaces including screeds are solid and not crumbly.
- As this is a moisture cured product, some skinning may occur in the pail. This is to be cut out and removed.
- Mix well before use using an electric drill with a mixer attachment at low speed.

FALLS TO DRAINS

We recommend that ACTFLEX 929 SPU be laid on floors that provide positive falls to drainage outlets to eliminate water ponding

The slope of this fall should be:

- For internal wet areas - 1:80 – which equates to a 12.5mm fall over 1m.
- For external balconies, rooftops etc. 1:100 – which equates to a 10mm fall over 1m.

CRACKS

Allow all pre-treated crack areas to dry/cure.

- Cracks under 1mm in width – Can be primed then covered with a self-adhesive butynol tape.
- Cracks greater than 1mm and up to 2mm in width i.e., cracks that do not move or continue to grow, must be chased out to a minimum 2mm width and cleaned by vacuuming to remove all dust and residues. After cleaning, prime surface and allow to dry. Fill all static cracks with a bead of ACTFLEX 75FC joint sealant and cover with a self-adhesive butynol tape. Use a roller to ensure that a secure bond is made between the tape and substrate.
- Cracks greater than 2mm or subject to movement or growth must be referred to the builder or engineer for structure assessment.



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PRIMING

- **Primer Drying Duration:** Prior to proceeding with over-coating, it is imperative to allow primers the requisite time to fully dry according to specified guidelines.
- **Primer Selection:** The selection of an appropriate primer is contingent upon the prevailing substrate conditions and other relevant criteria.
- **Effective Application on Absorbent Surfaces:** When dealing with absorbent surfaces, like porous concrete or sand/cement screeds, the priming systems must be diligently worked into these substrates. This action serves to effectively seal pin holes and mitigate excessive absorption of ACTFLEX 929 SPU.
- **Indicators of Adequate Priming:** The adequacy of priming will be discerned by the presence of pin holes becoming apparent through the waterproofing membrane.
- **Interior and Dry Sound Surfaces:** For internal surfaces that are in good, dry, and stable condition, the application entails using 1 coat of ACTFLEX 700 PU Primer. Alternatively, if a combination of ACTFLEX 929 SPU and a water-based product such as ACTFLEX 906 WPU is being employed, the process involves applying 1 coat of ACTFLEX 600 Primer.
- **External or Textured Surfaces:** In scenarios where the surfaces are external or exhibit a rough texture, the protocol necessitates the application of 2 coats of ACTFLEX EP 250 Primer.
- **Metal Substrates:** When dealing with metal surfaces, a rust converter may be employed if required. Subsequently, an anti-corrosive metal primer is applied to the treated metal surfaces.
- **Wood or PVC Surfaces:** The application on wood or PVC surfaces necessitates the use of a primer that is compatible and suitable for these materials.
- **Treatment of Rusty Metal Surfaces:** Rusty metal surfaces warrant specific attention. Loose rust and paint particles are to be eliminated via wire brushing. Sound regions retaining paint must be roughened to establish a robust mechanical key. Any loosened flakes or corroded metal segments should be removed. In a two-step process: commence with a rust converter application, followed by priming using an anti-corrosive primer.

JOINT SEALANT

- **Horizontal and Vertical Junctions:** Crucial junctions, whether they are horizontal (such as wall/floor interfaces) or vertical (like hobs/walls, shower set downs, and corners), necessitate thorough sealing with a continuous application of ACTFLEX 75FC joint sealant. Following application, sufficient drying time should be allowed.
- **Minimum Depth Requirement:** When applying joint sealant, it is imperative to ensure that the resulting profiles possess a minimum depth of 10mm at the midpoint of the joint. This measurement standard applies to all joint sealant profiles.
- **Addressing Substrate Gaps:** Inclusive of but not limited to drainage outlets, flashings, water stops, and nail/screw holes, any gaps present in the substrate must also undergo proper sealing using joint sealant. This preventive measure should be executed prior to the subsequent membrane application process.

APPLICATION

1. Using a brush or roller, uniformly apply a layer of ACTFLEX 929 SPU across the entire designated waterproofing area. For optimal results, it is recommended to use a medium nap roller (8–12mm pile) or a paint brush with bristles measuring 50mm in length. The initial application should be executed at a wet film thickness of 0.7, translating to a dry film thickness of 0.6mm. Allow this coat to thoroughly dry.
2. Subsequently, proceed to apply a second coat of the ACTFLEX 929 SPU membrane. This time, ensure that the thickness reaches 0.7mm (wet film thickness), yielding a resultant dry film thickness of 0.6mm. The culmination of these two coats will lead to a comprehensive dry film thickness of 1.2mm.
3. The recommended application rate must be adhered to during this process. Please note that the approximate drying time for each coat is 24 hours at a temperature of 23°C and with a relative humidity of 50%.

SELF ADHESIVE BUTYNOL TAPE FOR SHEETED FLOORS AND WALLS.

1. ACTFLEX SA Tape Application:
 - Place ACTFLEX SA Tape centrally along the fibro cement sheet's floor and wall joint, ensuring full coverage and alignment.
 - Press the tape down gently for secure adhesion, removing wrinkles or bubbles.
2. Corners and Terminations:
 - Trim ACTFLEX SA Tape at corners and terminations with precision.
 - Coat the tape with waterproofing membrane to ensure complete encapsulation.
3. Sealing the Tape: Apply ACTFLEX 929 SPU Waterproofing Membrane over the tape, using a brush or roller to coat evenly.

APPLICATION RATES

	DFT RATE	Min Number Of Coats	Recoat Time At 25°C 50%RH	Full Cure Time At 25°C 50%RH
Wall Applications	1.0mm Or 1000 Microns	2	24 Hours	48 Hours After Final Coat
Floor & Upturn Applications	1.2mm Or 1200 Microns	2	24 Hours	48 Hours After Final Coat
Planter Box Floor & Retaining Walls	1.5mm Or 1500 Microns	2	24 Hours	48 Hours After Final Coat

PRIOR SCREEDING

In applications where the cured membrane system is to be covered with a self-supporting concrete screed which may be exposed to thermal or shrinkage movement, it is recommended that a 200micron plastic sheet be laid over the entire membrane surface to act as a slip sheet system prior to screeding.

TILING

Direct adhesion of tiling to cured membrane is not recommended. In applications where tiles are to be laid over ACTFLEX 929 SPU, a cement-based screed must be laid over the membrane. When screeding over ACTFLEX 929 SPU in sunlight or UV exposed areas, we recommend applying 2 coats of ACTFLEX 988 CWP over the screed as an anti-efflorescent coating before tiling.



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UNDERGROUND/LANDSCAPING AREAS

Always cover cured membrane with HIFLOW drainage cell 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 cured membrane by a compatible drainage cell and filter fabric system or protection board.

FLOOD TEST

It is recommended that after curing and prior to placement of protection or screeding, flood to a minimum depth of 50 mm of water for 24 hours. Drains should be plugged and barriers placed to contain the water.

NOTE: Ensure ACTFLEX 929 SPU is protected from sunlight after full cure.

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 929 SPU is a minimum 2-coat system.
- As a guide ACTFLEX 929 SPU 15litre (19.5kg) pail will cover approximately 2 coats of 8-10m².
- Coverage rate of 1.5-1.875 m²/L is based on a total DFT of 1.2mm and does not allow for wastages.

CLEANING

Clean up immediately while still wet. Wipe down with solvent to clean tools & equipment. Once dry, is difficult to remove and mechanical means may be necessary. No.1. Observe all OH&S and MSDS information pertaining to safe usage and handling of solvents.

DO NOT discharge product or water from cleaning into sewer or waterways.
DO NOT touch the spill material.

STORAGE

120N months in the original unopened containers stored in cool, dry conditions 10-22°C. Protect the material against moisture and direct sunlight. Storage above this temperature may reduce storage life. Uncured product is combustible so keep all sources of ignition away from product and its vapours and DO NOT store in pits, depressions, basements or areas where vapours may be trapped. ACTFLEX 929 SPU is sensitive to airborne moisture. It is preferable to use all contents of the container after opening.

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

ACTFLEX 929 SPU is hazardous and may cause skin and/or eye irritations. Always use in a well-ventilated area and wear PPE gloves, safety boots and protective eyewear (against splashes). Use breathing respirators at all times. Organic vapour respirators with particulate pre- filters and powered, air-purifying respirators are NOT suitable. Change soiled work clothes and wash hands before breaks and after finishing work. In case of eye contact, rinse with plenty of water: If inhaled, remove to fresh air, if discomfort persists, if any breathing difficulties occur or if swallowed (do NOT induce vomiting), immediately contact the Poisons Information centre and seek medical attention. KEEP OUT OF REACH OF CHILDREN. Uncured product is combustible so keep all sources of ignition away from product and its vapours. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or 0800 764 766 (NZ). or a doctor for advice. 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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