ACTFLEX 101 UV .

Technical Data Sheet CO POLYMER UV STABLE WATERPROOFING MEMBRANE 23/01/2025

Description

ACTFLEX 101 UV is a high-performance, Class III co-polymer waterproofing membrane engineered for exposed applications requiring superior UV resistance and long-term durability. Formulated with advanced UV-stabilized polymers, it provides exceptional protection against water ingress, weathering, and environmental degradation. Designed for use on facades and other exposed surfaces, **ACTFLEX 101** UV can be tinted to a wide range of pastel shades, ensuring both aesthetic adaptability and high-performance waterproofing for residential, commercial, and industrial structures.

Roller, Brush, or Spray Grade

Colour	Packaging (Weight)
Grey or White	15L (20kg)

Standards Compliance

- Meets the requirements of AS4654.1 – "Waterproofing membranes for external above-ground use".
- LOW VOC - Meets Green Building Council of Australia Greenstar requirements IEQ-13, IEQ-11
- Classified as Non- Hazardous and Non-Flammable.

Suitable for the Following Applications

- Exposed roof tops
- Wall facades
- Under Pedestal Systems
- Box gutters
- Exposed podiums
- Parapet walls.

Can Be Used Over the Following Substrates

- Fibre Cement Sheets - Walls (min. 6mm). Wet area grade only.
- Concrete - Cured for min. 28 days and left with a wood trowel finish. Before 28 days 2 coats of ACTFLEX EP 250 is required
- Renders and Screeds - Cured for min. 7 days and left with a wood trowel finish.
- Compressed Fibre Cement (min. 15mm). Wet area grade only.
- Plasterboard walls - (min. 10mm). Wet area grade only.
- Brickwork, block work, masonry, asbestos, sycon, cement, timber, metal, and PVC surfaces (with primer).
- We do not recommend applications of ACTFLEX 101 UV be applied on particle board, platform floor sheeting, yellow tongue, or chipboard surfaces as they are not a suitable substrate for wet areas. This should be replaced with Wet Grade CFC sheeting.

Advantages

- Excellent resistance to UV, weathering, and CO_2
- Class III – highly flexible, tough, and durable
- Meets 'Green Star' environmental criteria – low VOC, low odour
- Non-hazardous and non-flammable
- Does not re-emulsify after curing
- Maintains flexibility – does not embrittle with age
- Suitable for confined spaces
- Paintable with conventional acrylic paint
- Tintable with up to 1% acrylic tint (consult manufacturer)
- Trafficable once cured
  Excellent build properties for horizontal and vertical surfaces

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ACTFLEX 101 UV Properties

Form	Single-Component Viscous Liquid	**No Fatigue Cracking**	Pass
Membrane Classification	Class III	**Tear Resistance**	8-12 N/mm2
Colour	Grey, white	**Recoat Time at 25°C 50% R.H.**	6 Hours
Solids Content	65%	**Tack free time at 25°C 50% R.H.**	6 Hours
Elongation at break	>450%	**Full cure time at 25°C 50% R.H.**	14 Days
Tensile Strength	4.26 MPa	**Application Temperature**	10-26°C
Shore Hardness	60>		

Preparation

- Ensure surfaces are installed per manufacturer instructions and Australian Standards and are structurally sound.
- Surface must be clean, dry, smooth, and free of contaminants such as oils, grease, wax, mould, dust, curing compounds, release agents, coatings, adhesives, loose particles, rust, paint, and efflorescence.
- Damaged concrete (2mm–30mm) can be treated with **ACTFLEX POLYCRETE**.
- Spalling concrete must be repaired using the **FORSPEC Epoxy Range** (refer to product data sheets).
- Remove high points or protrusions that could pierce the membrane.
- Fill blowholes and surface imperfections with a high-strength, non-shrink mortar.
- Ensure all applied surfaces, including screeds, are solid and not crumbly.
- If skinning occurs in the pail, cut and remove before mixing.
- Mix well before use with an electric drill and low-speed mixer attachment.
- Internal wet areas: Minimum fall of 1:80 (12.5mm per 1m).
- External areas (balconies, rooftops): Minimum fall of 1:100 (10mm per 1m).

Crack Preparation

Surface Cleaning:

- Remove all loose debris, dirt, dust, curing compounds, oils, grease, surface sealers, existing coatings, and any other contaminants from the crack area. Allow any pre-treated cracks to fully cure before applying FORSPEC materials.

Static Cracks < 2.0mm (Using FORSPEC SA Tape):

- Apply a suitable FORSPEC primer 200mm across and along the crack.
- Once the primer has dried, centrally place **FORSPEC SA Tape** over the prepared crack.
- Use the **FORSPEC Brass Roller** and **FORSPEC Small Hand Roller** to ensure uniform adhesion to the substrate and remove any air bubbles or wrinkles.
- Apply two coats of **ACTFLEX 101 UV** to encapsulate the tape, ensuring the overlap of tape sections is at least 50mm.

Static Cracks > 2.0mm (Using ACTFLEX MS PRO):

- Grind out the crack to a minimum width of 6mm and depth of 6mm.
- Use ACTFLEX MS PRO joint sealant in the reglet that has been chased out
- Tool the sealant flush with the surface, then cover with a suitable bond breaker tape.
- Apply two coats of **ACTFLEX 101 UV** once the sealant has dried for at least 1-2 hours.
- For cracks requiring enhanced shear strength and durability, consider additional crack rectification methods:
  - **PROBOND 1100PS**
  - **PROBOND 1100**
  - **CRACK PRO 1200PS**
  - **CRACK LOCK E400L**

Follow the product data sheets for each method, available at www.forspec.com.au.

Priming

- **Surface Preparation:** Must follow the preparation list in this TDS.
- **Primer Selection:** Choose the appropriate FORSPEC primer based on the substrate condition:
  - **ACTFLEX EP 250**
  - **ACTFLEX 600 PRIMER**
  - **ACTFLEX 500 NP PRIMER**
  - **ACTFLEX 300**
- If moisture content exceeds 80% relative humidity (ASTM F2170) or 15g/m²/24hrs (ASTM F1869),
- Apply a minimum of two coats of **ACTFLEX EP 250.**
- A digital non-destructive moisture meter reading of 5% or greater typically indicates high moisture, but Australian Standards must be followed.

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- **Mixing the Primer (If required):**
  - Stir or mix thoroughly before application to ensure consistency.
  - Follow manufacturer instructions for mixing ratios, pot life, and working time.
- **Application of Primer:**
  - Apply using a brush, roller, or airless sprayer, ensuring even coverage across the substrate.
  - Allow the first coat to dry completely before applying a second coat if required.
  - If applying two coats, apply the second coat perpendicular to the first for optimal coverage.
- **Drying Time & Inspection:**
  - Allow the primer to cure fully as per manufacturer recommendations before applying **ACTFLEX 101 UV.**
  - Inspect the surface for full coverage, ensuring no pin holes or missed areas.

If necessary, lightly abrade or clean the surface before proceeding with waterproofing application.

Detailing

- **Option 1:** Ensure the primer is fully cured before applying FORSPEC Reinforcement Tape Systems. The surface should be clean, dry, and free of dust, grease, and loose particles.
- **Application to Floor Joints:** For **ACTFLEX SA TAPE** (self-adhesive), peel off the release paper and place the tape over the floor joints For FORSPEC Non-Adhesive Tapes (e.g**., ACTFLEX FLEXTAPE**), apply a coat of **ACTFLEX 101 UV** on the floor joints, then embed the tape into the wet coat, ensuring there are no bubbles or wrinkles. Press firmly using a roller and overlap tape ends by at least 50mm.
- **Application to Wall/Floor Joints:** For **ACTFLEX SA TAPE**, peel off the release paper and position the tape at the wall/floor junction, ensuring 50mm coverage on both the floor and wall. For non-self-adhesive tapes, apply **ACTFLEX 101 UV** to the junction before placing the tape into the wet coat. Ensure all edges are sealed and overlap the tape by 50mm.
- **Application Around Penetrations**: For **ACTFLEX SA TAPE**, peel off the release paper and wrap it around pipes or drains. For other tapes, apply **ACTFLEX 101 UV** around the penetration and press the tape into the wet coat. Ensure full adhesion and overlap by 50mm if needed.

Types of FORSPEC Reinforcement Tape Systems:

- **SUPERFLEX Joint Tape**
- **ACTFLEX FLEXTAPE**
- **ACTFLEX MESHTAPE**
- **ACTFLEX SA TAPE**

- Final Checks: Ensure all tape edges are fully adhered. Follow Australian Waterproofing Standards for bond-breaking methods and apply **ACTFLEX 101 UV** membrane afterward.
- **Option 2:** Application Process for **ACTFLEX 101 UV** with a Joint Fillet - **ACTFLEX MS PRO**
  Begin by applying a bead of **ACTFLEX MS PRO** sealant around all critical areas, such as drains, penetrations, floor/wall junctions, wall/wall junctions, and joints, prior to the application of **ACTFLEX 101 UV**.

  For external applications, increase the bead size to 15mm x 15mm fillet. After applying the sealant, smooth it thoroughly over all junctions.

  If extra reinforcement is needed for areas with movement, apply a FORSPEC Bandage System (non self adhesive) over the **ACTFLEX MS PRO**. Apply the first coat of **ACTFLEX 101 UV** into the corner junctions. While the first coat is still wet, embed FORSPEC reinforcement system centrally, ensuring no creases or air pockets. Allow to cure before applying second coat. Apply a second coat of **ACTFLEX 101 UV** to fully encapsulate the embed FORSPEC reinforcement system. Allow it to dry before applying **ACTFLEX 101 UV** to the remaining surfaces. Ensure all bond-breaking methods follow Australian Waterproofing Standards.

Application

1. Begin by applying a generous coat of ACTFLEX 101 UV membrane over the entire surface to be waterproofed using a brush or roller. For best results, use a medium nap roller (8–12mm pile) or a 50mm long-bristle paintbrush. Apply the first coat at a **wet film thickness (WFT) of 0.92mm**, which will dry to a **dry film thickness (DFT) of 0.6mm**. The coverage rate is approximately **0.67m² per liter per coat**, or **10m² per 15L container** for two coats. Allow the first coat to dry thoroughly, typically taking 4–6 hours at 23°C and 50% relative humidity.
2. Once the first coat has dried, apply a second coat of ACTFLEX 101 UV , maintaining the same WFT of 0.92mm to achieve a DFT of 0.6mm. Ensure even and consistent coverage across the surface.
3. The total application of these two coats will result in a cumulative **DFT of 1.2mm**, providing a durable and robust waterproofing barrier.

By following these steps meticulously, you will achieve the desired waterproofing outcome using **ACTFLEX 101 UV** . Always adhere to recommended dry times and film thicknesses for optimal performance.

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Repairs and Overcoating of Old FORSPEC ACTFLEX 101 UV

1. **Cleaning:** Begin by cleaning the surface using a mild detergent. Thoroughly rinse with clean water, ensuring the removal of all contaminants. Allow the surface to air dry completely. It's imperative that the surface is not only dry but also free from any dust or residues.
2. **Overlapping Membranes:** When conducting repairs or over-coating, ensure both the primer and the new membrane extend over the existing membrane by a minimum of 100mm. This overlap is essential to establish a secure and robust bond between the existing and new membranes.
3. **Existing Membrane in Good Condition:** If the current **ACTFLEX 101 UV** membrane is dry, sound, and in satisfactory condition, begin by priming with a single coat of ACTFLEX EP 250. This step enhances the bond between the existing and new coatings.
4. **Existing Membrane Delaminating:** In instances where the existing **ACTFLEX 101 UV** membrane is delaminating, remove all delaminated coatings back to a firmly adhered edge. After removal, apply two coats of ACTFLEX EP 250. This process ensures proper adhesion and stability.
5. **Coating Application:** Apply a total of three coats of **ACTFLEX 101 UV** after surface preparation. Follow the application guidelines for each coat to ensure uniformity and effective waterproofing.

Application Rates

	DFT RATE	Number of Coats Minimum	Recoat Time at 25°C 50%RH	Full Cure Time at 25°C 50%RH
External Exposed Wall Applications	8mm or 800 microns	2	6 Hours	14 Days After Final Coat
Roof Tops, Gutters and Exposed Horizontal Surfaces	1.2mm or 1200 microns	2	6 Hours	14 Days After Final Coat

Paver Pedestals System

- Once fully cured, ACTFLEX 101 provides a durable and stable surface that is suitable for supporting pedestal systems, ensuring long-lasting performance and reliability.Paver pads (tiling pedestals) can be used over **ACTFLEX 101 UV** and should be installed as per the manufacturer's instructions.
- When installing paver pads over the waterproofing membrane, rubber matting must be placed under each pedestal to minimize damage to the membrane and extend its service life.

Limitations

- 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.
- Is not a vapour barrier and is not designed to withstand negative side substrate head of pressure.
- **ACTFLEX 101 UV** must be applied to a dry surface which is free from dampness.
- Do not apply if rain threatens.
- Tinting may affect the solar and UV reflective properties of **ACTFLEX 101 UV** .
- Do not tint with more than 1% tint acrylic colour.
- 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 101 UV** accepts maintenance foot traffic only.

Coverage, Drying and Curing

Coverage, drying, and curing rates are provided as indicative benchmarks, recognizing their susceptibility to various influencing factors including surface porosity, humidity, temperature, climatic conditions, ventilation, application methodology, and dry film thickness. A 15-litre (20kg) container

ACTFLEX 101 UV is expected to adequately cover **approximately 8–10m²** with **three coats**, based on a total **Dry Film Thickness (DFT) of 1.2mm**. The coverage rate is **0.67m² per liter per coat**, or **10m² per 15L container** for two coats. This estimate assumes normal application and does not account for potential material wastage. The **re-coat time** is typically **6 hours** at 23°C and 50% relative humidity. It becomes **trafficable after 24 hours**, and achieves **full strength cure in 14 days**. Avoid allowing rain to sit on the surface or submerging it under water for at least **72 hours** to ensure optimal performance.

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Storage

Storage: ACTFLEX 101 UV should be stored in cool, dry conditions (10-22°C) in its original, unopened containers. Protect the material from moisture and direct sunlight, as exposure to temperatures above the recommended range may reduce the shelf life of the product. The product is **combustible** when uncured, so it is important to keep it away from any ignition sources and avoid storing it in areas such as pits, depressions, basements, or spaces where vapours may accumulate. Once the container is opened, it is preferable to use all contents, as the product is sensitive to airborne moisture.

Shelf Life: When stored in proper conditions, **ACTFLEX 101 UV** has a shelf life of **12 months** from the date of manufacture.

Safety Precautions

ACTFLEX 101 UV is classified as non-hazardous it may cause skin and eye irritation. Always use this product in a well-ventilated area and wear the appropriate personal protective equipment (PPE), including chemical-resistant gloves, safety boots, and protective eyewear (to guard against splashes). Inhalation of vapours may also pose a risk, so it is essential to wear a suitable respiratory protection device. Note that **organic vapour respirators with particulate pre-filters** and **powered air-purifying respirators** are **not suitable** for use with this product.

To minimize exposure, ensure that soiled clothing is changed immediately and wash hands thoroughly before taking breaks or finishing work. In the event of eye contact, rinse immediately with plenty of water. If inhaled, move the affected person to fresh air, and if discomfort persists or if breathing difficulties occur, seek medical attention without delay. If swallowed, **do not induce vomiting**. Contact the Poisons Information Centre (13 11 26 within Australia or 0800 764 766 in New Zealand) for advice.

IMPORTANT: The uncured product is **combustible**, so keep all sources of ignition away from the product and its vapours. For emergency situations, dial **000** for assistance from the **Police or Fire Brigade**.

Always comply with **local regulations** and follow the safety instructions outlined on the packaging. For additional safety information, refer to the **Safety Data Sheet (SDS)** available at www.forspec.com.au.

Data Sheet

This Technical Data Sheet (TDS) and Material Safety Data Sheet (SDS) are subject to revision as necessary to ensure compliance with relevant Australian Standards and incorporate technological advancements. It is crucial to read the most current versions of the SDS and TDS before use, as application and performance data may be updated. For the latest technical information, please contact Forspec Protective Coatings at (02) 8021 3517 or email info@forspec.com.au to request a copy. The information provided is representative but does not serve as a comprehensive specification. For specific projects, we recommend consulting directly with the company for tailored specifications.

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