ACTFLEX 1300R.



Technical Data Sheet | **Dual-Fabric Butyl Rubber Sheet Waterproofing Membrane — Adhesive Applied, Heat-Welded Laps** | **Issue date: 2 October 2026**

Description

ACTFLEX 1300R is a dual-fabric butyl rubber (isobutylene-isoprene rubber, IIR) sheet waterproofing membrane, engineered for the exposed and heavily loaded parts of a building: trafficable podiums, roof decks, balconies and terraces, below-ground walls and basements on the positive side, planter boxes and landscaped areas, and pedestal paver and timber decking systems where point loads and tearing govern membrane selection. Butyl rubber is specified where the membrane has to survive conditions that degrade other chemistries: it is effectively closed to water vapour, chemically stable in permanently buried and permanently wet service, and it does not oxidise, embrittle or lose flexibility with age. Its elastic recovery is retained across the full service temperature range, so the sheet continues to accommodate structural movement, thermal cycling and substrate cracking over the life of the building rather than hardening into a brittle film. Its UV stability allows extended open-air exposure during construction, and its root resistance allows it to sit permanently beneath growing medium. Internal wet area use is permitted only with written Forspec approval.

Advantages

- Dual nonwoven fabric facing — bonds to the substrate below and keys the finish above, from one sheet.
- Accepts direct tiling, screeding or a liquid membrane finish with no primer or further preparation.
- Heat-welded laps produce a monolithic, continuous membrane at every joint, with probe-testable seam integrity.
- No open flame at any stage — hot-air welded only, so no torch and no hot work permit for the welding itself.
- Fully adhered across the whole area — prevents lateral water tracking beneath the membrane.
- Tiling, screeding and flood testing from one hour after installation.
- High elongation and flexibility — no fillet or bond breaker required at corners and junctions.
- High tear resistance, suiting pedestal and paver systems.
- Root resistant — suitable for planter boxes and landscaped areas.
- Detailing executed in cut strips of the membrane itself, or with ACTFLEX SA TAPE.
- Transitions cleanly into the FORSPEC liquid membrane range for hybrid detailing.
- Strong UV stability for extended open-air exposure during construction.
- Consistent factory-controlled gauge across the whole area — no film build variation.
- Suitable for internal and external wet areas and below-ground use.

Uses

- Internal wet areas — bathrooms, showers, ensuites and laundries, in accordance with AS 3740:2021. Approved for internal wet area use only with written approval from FORSPEC Technical Services, issued per project. ACTFLEX 900R is the standard internal undertile membrane.
- Cavity flashings and damp-proof courses in masonry and masonry veneer construction, to AS/NZS 2904.
- External above-ground areas — balconies, terraces, podiums and roofs beneath approved finishes, in accordance with AS 4654.2-2012.
- Below-ground structures and retaining walls, positive side.

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Uses (continued)

- Beneath tiling, applied directly to the upper fabric face with ACTFLEX BIOSET or a compatible cement-based tile adhesive.
- Beneath bonded and unbonded screeds using FORSPEC SCREEDX, FORCEM SCREED BINDER or ACTFLEX CRYSTAL BOND.
- Beneath timber decking and paver pedestal systems.
- Planter boxes and landscaped areas beneath protection and drainage layers. Large trees and aggressive roots are handled subject to written confirmation from FORSPEC Technical Services.
- Hybrid systems in combination with the FORSPEC liquid membrane range — ACTFLEX 906 WPU or ACTFLEX 989 CWP for non-exposed transitions, ACTFLEX 101 UV where the finished transition is UV-exposed.
- Remedial and maintenance waterproofing over approved, prepared substrates.

System Components

ACTFLEX 1300R is applied as part of a complete FORSPEC waterproofing system.

- **Adhesive —** ACTFLEX 301 ADHESIVE, the solvent-based contact adhesive that bonds the membrane to the substrate. The membrane is not installed without it.
- **Primer —** ACTFLEX EP250, two coats, where substrate moisture is at or above the threshold stated under Priming.
- **Detailing —** cut strips of ACTFLEX 1300R itself; ACTFLEX SA TAPE; ACTFLEX FLEXIPLUG for movement joints, corner junctions and joint detailing prior to membrane installation; ACTFLEX MS PRO for sealant fillets, cut edges and rigid fittings.
- **Hybrid detailing —** the FORSPEC liquid membrane range, applied over the upper fabric face at junctions and terminations.
- **Concrete reinstatement —** FORBUILD 100 or FORCRETE 100 for defects between 2 mm and 30 mm; PROBOND 1100 or the appropriate FORSPEC concrete repair product for spalling and structural repair.
- **Tile fixing —** ACTFLEX BIOSET, or a compatible cement-based tile adhesive, applied directly to the upper fabric face.
- **Screeding —** FORSPEC SCREEDX engineered screed; FORCEM SCREED BINDER; ACTFLEX CRYSTAL BOND.
- **Welding equipment —** automatic hot-air welder for production seams, hand welder and silicone roller for detail work, plus a blunt seam probe for testing.

Use only the components above, applied per their current TDS, to maintain system compliance and warranty eligibility. Substitution of non-FORSPEC components voids system warranty eligibility.

Standards Compliance

STANDARD	TITLE	POSITION
AS/NZS 4858:2004 (R2020)	Wet area membranes	Designed and manufactured to comply †
AS 3740:2021	Waterproofing of domestic wet areas	Suitable for wet area waterproofing when installed as part of a complete FORSPEC system in accordance with this standard. Internal wet area use requires written approval from FORSPEC Technical Services.
AS/NZS 2904:1995	Damp-proof courses and flashings	Designed and manufactured to comply where used as a cavity flashing or damp-proof course †. Where the NCC Deemed-to-Satisfy material list is mandated by the certifier, confirm acceptance before specifying.
AS 3700 / AS 4773.2	Masonry structures / Masonry in small buildings	Cavity flashing and damp-proof course installation, lapping, weepholes and stop ends in accordance with these standards and NCC Housing Provisions Part 5.7.
AS 4654.1-2012	Waterproofing membranes for external above-ground use — Part 1: Materials	Designed and manufactured to comply †

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Standards Compliance (continued)

STANDARD	TITLE	POSITION
AS 4654.2-2012	Waterproofing membranes for external above-ground use — Part 2: Design and installation	Systems designed and installed in accordance with this standard.
AS 3958:2023	Installation of ceramic and stone tiles	Tiling directly to the upper fabric face, or to a screed over the membrane, in accordance with this standard.
EN 12316-2 / EN 12317-2	Determination of peel and shear resistance of joints	Weldable seam performance determined in accordance with these methods.
NCC 2022	National Construction Code	Internal wet areas Volume Two Part H4 and Volume One Part F2, with AS 3740 as the compliance pathway; external above-ground work with AS 4654 as the compliance pathway.
Volatile organic compounds	VOC content	Not applicable — factory-manufactured sheet membrane. ACTFLEX 301 ADHESIVE is solvent-based; refer to its TDS and SDS.
AS/NZS 4020	Products in contact with drinking water	Not certified. Potable-water contact requires written confirmation from FORSPEC Technical Services.

† Manufacturer classification. Accredited verification testing is programmed; certified report numbers will be cited on completion.

Test reports are available on request from Forspec Protective Coatings.

Technical Data

PROPERTY	VALUE	BASIS
Product type	Single-ply butyl rubber sheet waterproofing membrane, adhesive applied with heat-welded laps	—
Core material	Butyl rubber (isobutylene-isoprene rubber, IIR), light grey	—
Fabric facing	White nonwoven fabric, both faces	—
Membrane gauge (total)	1.3 mm	—
Installation method	Fully adhered with ACTFLEX 301 ADHESIVE; laps hot-air welded	—
Roll dimensions	1.4 m x 20 m (28 m^2 gross), approximately 34 kg per roll	—
Tensile strength	6.1 MPa minimum	AS 4654.1 *
Elongation at break	Greater than 380%	AS 4654.1 Appendix A *
Tear resistance	29.0 kN/m minimum	ASTM D624 *
Water vapour transmission	0.48 g/m^2/24 h	ASTM E96 *
UV resistance	No visible cracking	AS 4654.1 Table A *

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Technical Data (continued)

PROPERTY	VALUE	BASIS
Heat ageing	Pass	AS 4654.1 *
Durability	Pass	AS 4654.1 Table A4 *
Shear strength — end lap	305 N	EN 12316-2 *
Shear strength — side lap	264 N	EN 12316-2 *
Peel strength — end lap	96 N	EN 12317-2 *
Peel strength — side lap	79 N	EN 12317-2 *
Service temperature range	−20°C to +90°C	*
Application temperature	5°C to 35°C ambient (average)	—
Ready for cover (at 25°C, 50% RH)	1 hour after installation	—
Adhesive coverage — ACTFLEX 301 ADHESIVE	4–7 m^2/L per coated face	Refer ACTFLEX 301 ADHESIVE TDS
Shelf life	Minimum 60 months from date of manufacture in unopened original packaging	—
Safety Data Sheet	Refer to the current ACTFLEX 1300R SDS at www.forspec.com.au. The ACTFLEX 301 ADHESIVE SDS also applies.	—

* Typical Forspec R&D characteristic values on standard production material at 25°C and 50% relative humidity — not for engineering design without written confirmation from FORSPEC Technical Services.

Limitations

- The membrane is adhesive applied. It is not mechanically fastened and not loose laid — ACTFLEX 301 ADHESIVE must be used to bond the sheet to the substrate across its whole area.
- Welding applies to the laps only. Never attempt to weld the sheet to the substrate, and never apply adhesive into a lap that will be welded — welded joints require clean, adhesive-free mating faces.
- If ACTFLEX EP250 has not fully cured before ACTFLEX 301 ADHESIVE is applied, the adhesive solvents will attack and damage the uncured epoxy film. Allow full cure.
- Substrates must be dry at the time of adhesive application. A contact adhesive will not develop bond to a damp surface.
- Remove all sharp protrusions, aggregate and debris that could puncture the membrane once bonded.
- Newly poured concrete must be cured a minimum of 28 days before membrane installation.
- Non-standard substrates — PVC panels, negative-side conditions, heavily jointed or moving substrates — require written confirmation from FORSPEC Technical Services before proceeding.
- Not a wearing surface. The membrane is always covered by tiles, screed, decking, pavers or an approved finish.
- UV stability supports extended open-air exposure during construction; it is not a substitute for the specified finish. Protect from sunlight and mechanical damage where cover is delayed.
- Do not stretch the sheet during installation. A stretched sheet will recover and lift at laps and terminations.
- An unwelded, cold or contaminated lap is a defect in the waterproofing envelope — every seam must be probe-tested.
- Do not apply below 5°C or above 35°C ambient.
- Solvent-based adhesive is used with this membrane. Provide ventilation and control ignition sources per the ACTFLEX 301 ADHESIVE SDS.
- Not certified to AS/NZS 4020. Potable-water contact requires written confirmation from FORSPEC Technical Services.
- Internal wet area use is permitted only with written approval from FORSPEC Technical Services, issued per project. ACTFLEX 900R is the standard internal undertile membrane.
- Installation is restricted to applicators holding current FORSPEC accreditation for this system.

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Limitations (continued)

- Before any cover is placed, the builder records the membrane on the site hazard register and briefs following trades — any penetration of the finished membrane voids the installation until repaired by an accredited applicator.

Approved Substrates

SUBSTRATE	REQUIREMENT
Concrete	Cured minimum 28 days. Structurally sound, clean and dry. Defects between 2 mm and 30 mm repaired with FORBUILD 100 or FORCRETE 100; spalling concrete treated with PROBOND 1100 or the appropriate FORSPEC concrete repair product.
Masonry and blockwork	Sound, joints struck flush and made good.
Sand and cement screeds	Cured, sound and non-friable.
Plywood	Structural grade, fixed, rigid and dimensionally stable.
Fibre cement sheet	Wet-area grade; fixed and jointed to the manufacturer's specification.
Selected PVC substrates	Confirm compatibility with FORSPEC Technical Services before proceeding. Adhesion test area required.
Moisture-affected or curing concrete	Prime with two coats of ACTFLEX EP250 per its TDS, allowing the specified cure between coats, before adhesive application.
Non-standard substrates — negative-side conditions, heavily jointed or moving substrates	Contact FORSPEC Technical Services before proceeding.

Surface Preparation

- **Substrate acceptance —** the substrate must be structurally sound, clean, dry and free of dust, laitance, curing compounds, oils, grease and surface sealers. Installation constitutes acceptance of the substrate.
- **Curing —** newly poured concrete must be cured a minimum of 28 days prior to membrane installation.
- **Protrusions —** remove all sharp protrusions, aggregate and debris that could puncture the membrane once bonded.
- **Concrete defects —** repair defects between 2 mm and 30 mm using FORBUILD 100 or FORCRETE 100.
- **Spalling concrete —** treat with PROBOND 1100 or the appropriate FORSPEC concrete repair product, per the relevant TDS.
- **Joint detailing —** treat movement joints, corner junctions and other joint details with ACTFLEX FLEXIPLUG before membrane installation.
- **Falls —** verify falls before waterproofing. Internal wet areas: minimum 1:80 and maximum 1:50 to the floor waste, per AS 3740:2021 and NCC Housing Provisions Part 10.2.12. External areas: minimum 1:100 per AS 4654.2.
- **Final clean —** vacuum clean immediately before priming or adhesive application. Dust is the most common cause of adhesive failure.

Checks before proceeding: substrate sound, dry and vacuumed; falls verified; defects reinstated and cured; joint detailing complete.

Priming

Priming is required only where substrate moisture exceeds the thresholds below. On sound, dry substrates the membrane is bonded directly with ACTFLEX 301 ADHESIVE.

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Priming (continued)

Moisture-affected or curing concrete

Where substrate moisture exceeds 80% relative humidity (ASTM F2170) or 15 g/m²/24 h (ASTM F1869) tested to AS 1884 or AS 3740 — typically 4.5% or higher on a calibrated non-destructive meter, though Australian Standards testing takes precedence — prime with two coats of ACTFLEX EP250 in accordance with its TDS, allowing the specified cure time between coats.

Once the primer has fully cured, apply a neat coat of ACTFLEX 301 ADHESIVE to the primed substrate and allow to dry, then apply a second neat coat to both the substrate and the membrane underside before bedding once tacky.

If ACTFLEX EP250 has not fully cured before ACTFLEX 301 ADHESIVE is applied, the adhesive solvents will attack and damage the uncured epoxy film. This is not recoverable — the primer must be removed and reinstated.

Adhesive Application

ACTFLEX 301 ADHESIVE is a ready-to-use, solvent-based contact adhesive for bonding the underside of ACTFLEX 1300R to the prepared substrate. It suits concrete, masonry, sand and cement screeds, plywood, fibre cement sheet, and selected PVC substrates confirmed with FORSPEC Technical Services. Dilution is prohibited.

STAGE	REQUIREMENT	CHECK
Preparation	Stir the pail thoroughly before use. Do not dilute.	Adhesive uniform
Application	Roll or brush evenly onto both the substrate and the membrane underside at 4–7 m²/L per coated face.	Both faces coated, no misses
Flash off	Allow both coated surfaces to flash off until tacky before bringing them together. If the adhesive skins over first, re-coat.	Tacky, not wet, not skinned
Maximum adhesion	Apply a first neat coat, allow to fully dry, then apply a second neat coat immediately before bedding.	Two-coat method where specified
Lap zones	Do not apply adhesive into any area that will later be welded. Welded joints require clean, adhesive-free mating faces.	Lap zones masked and clean
Bedding	Mate the sheet progressively from one edge, working it into full contact as it lands to expel air. Never drop the sheet flat onto the adhesive.	No trapped air, no creases
Rolling	Roll the full sheet area firmly to develop contact across every square metre, not just at the edges.	Full-area contact achieved

Contact adhesive bonds on contact and does not reposition. Position the sheet dry and confirm alignment before the coated faces are brought together.

Membrane Layout and Laps

- Plan the layout before the first roll is unwrapped. Sheet direction and lap positions determine both the weld run and the finished appearance.
- Dry-lay and relax rolls before bonding and welding. A sheet laid under tension will recover and stress the laps and terminations.
- Lay sheets to run with the fall wherever practicable, so laps shed water rather than dam it.
- Position sheets to extend up all adjoining upstands and vertical transitions, maintaining full continuity. Never terminate the field membrane at the base of an upstand.
- Overlap adjoining sheets a minimum of 40 mm at both side laps and end laps.
- Stagger end laps between adjacent sheets — never align end laps across the run to create a cross joint.
- Set out so no lap falls in a valley, gutter sole or ponding zone where practicable.
- Mark cut lines with chalk rather than cutting on the fly, to avoid narrow offcuts landing at critical details.
- Keep all lap zones clean, dry and free of adhesive. Fold back the lap and clean both mating faces immediately before welding.

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Hot-Air Welding

The laps are hot-air welded to fuse the sheet into a continuous membrane. No open flame is used at any stage. The weld is the waterproofing at every joint — it is not a lap seal.

STAGE	REQUIREMENT	CHECK
Equipment	Automatic hot-air welder for production seams. Hand welder and silicone roller for detail work, corners and terminations.	Equipment serviced, nozzle clean
Trial weld	Carry out a trial weld each day and again whenever conditions change, to establish temperature and speed for the prevailing ambient, wind and humidity.	Trial weld peel-tested and recorded
Lap preparation	Fold back the lap and clean both mating faces. Both surfaces must be clean, dry and free of adhesive at the moment of welding.	No dust, moisture, oil or adhesive
Production welding	Run the automatic welder at the established parameters, maintaining constant speed and nozzle position. Do not stop mid-run.	Continuous even weld
Detail welding	Hand weld all corners, terminations, penetrations and any seam the automatic welder cannot reach, consolidating with a silicone roller.	Full fusion, no voids
Weld faults	A cold weld has not fused; an overheated weld has degraded the butyl rubber. Both are defects. Cut out and reinstate with a welded patch.	No cold or burnt seams accepted
Cooling	Allow each seam to cool before probing or applying load.	Seam cool before testing

Installation Sequence

ACTFLEX 1300R installs as a fully bonded, welded system. Work through the stages in order — bonding and detail work are completed and inspected before production welding proceeds.

1. Plan the layout. Dry-lay the sheets to confirm direction, fall lines and where laps fall relative to drains, junctions and penetrations. Mark cut lines with chalk.
2. Detail first. Treat movement joints, corner junctions and joint details with ACTFLEX FLEXIPLUG, and form corners, junctions, penetrations and outlets per the Joints and detailing section before the field sheet runs over them.
3. Bond the sheet. Working in manageable sections, apply ACTFLEX 301 ADHESIVE to both faces, allow both to flash off to tack, then mate the sheet progressively from one edge and firm down with a pressure roller.
4. Weld the laps. Run the trial weld, then weld continuously along every lap with even roller pressure directly behind the nozzle, doubling back over T-junctions and cross-laps.
5. Probe every weld along its full length while it is still accessible, and re-weld or patch on the spot anywhere that lifts.
6. Final pass. Roll the full installation with a weighted or water-filled roller to bed the sheet into uniform, full contact with the substrate.
7. Flood test in accordance with the Flood testing section before any covering, tiling or screed is placed.

Joints and Detailing

The membrane's elongation and flexibility allow it to be dressed into corners and junctions without a fillet or bond breaker. Detailing is executed in cut strips of the membrane itself, welded in. Two methods are approved.

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Joints and Detailing (continued)

- **Method 1 — cut membrane strip (preferred for most details)**
  Cut a strip of ACTFLEX 1300R approximately 200–300 mm wide, sized to suit the detail, and pre-form it to the shape of the corner, junction or penetration without stretching or thinning the fabric. Bed the underside into a neat coat of ACTFLEX 301 ADHESIVE, extending a minimum of 100 mm onto each adjoining plane, and roll firmly to remove trapped air. Heat-weld the strip to the field sheet along every mating edge, and weld adjoining detail strips to each other at every corner and junction so no detail relies on adhesive alone. Probe-test every completed weld.
- **Method 2 — ACTFLEX SA TAPE (where welding access is restricted)**
  Prepare the surface per the ACTFLEX SA TAPE data sheet — clean, dry, sound and free of loose material. Peel the release liner, position the tape centrally over the junction, corner or penetration, and roll firmly with a pressure roller to bed the tape fully and expel trapped air. Overlap adjoining tape sections a minimum of 50 mm. Where the field sheet meets the tape, weld directly onto the tape's fleece face; where welding is not practical, bed the sheet edge onto tacked-off ACTFLEX 301 ADHESIVE.
- **Corners and junctions —** dress the sheet into the angle without bridging, or form the detail from a cut strip welded to the field sheet. No fillet or bond breaker is required.
- **Movement joints —** treat with ACTFLEX FLEXIPLUG before the membrane is installed, then run the membrane over the completed detail.
- **Penetrations —** form a collar from a cut strip, weld it to the field sheet and dress it to the penetration with a sealed termination.
- **Upstands —** carry the membrane a minimum of 150 mm above the finished floor level at floor perimeters, and to the full wet-area height where specified by AS 3740:2021.
- **Complex junctions —** contact FORSPEC Technical Services before finalising detail work on complex or non-standard junctions.

Checks before proceeding: all details welded to the field sheet and to each other, all detail seams probed, no detail relying on adhesive alone.

Floor Waste and Penetration Detailing

Floor waste penetrations are finished using either a standard glued flange or a clamp-down flange, depending on the fitting installed.

- **Standard flange —** bond the membrane down onto the flange with ACTFLEX 301 ADHESIVE, then heat-weld the sheet directly to the flange detail. Transition the joint between the welded edge and the flange body with ACTFLEX SA TAPE or ACTFLEX MS PRO, priming first with the suitable FORSPEC primer per the ACTFLEX MS PRO TDS.
- **Clamp-down flange —** cut the membrane to size and lay it into the clamping ring without gluing or welding to the flange body — the mechanical clamping ring compresses the membrane against the flange to form the seal. Confirm the clamping ring is fully seated and evenly tightened before proceeding.
- **Rigid fittings and cut edges —** burn back the surface fabric with the hot-air welder first, then seal with ACTFLEX MS PRO where movement is expected, or PROBOND 1100 where a rigid epoxy fill is appropriate.

Liquid Transition and Membrane Termination

ACTFLEX 1300R transitions directly into the FORSPEC liquid membrane range. Select the liquid membrane on the exposure of the finished area: ACTFLEX 906 WPU or ACTFLEX 989 CWP for non-exposed transitions, and ACTFLEX 101 UV for rooftops, façades, balconies and other UV-exposed areas. Use ACTFLEX SA TAPE across every sheet-to-liquid transition joint, prepared by one of two approved methods.

- **Weld-through method —** prime above the upturn per the selected liquid membrane TDS. Centre the tape on the junction and heat-weld it directly to the fabric face — the fabric nap burns away along the weld line as intended. Roll to a smooth, void-free bond.
- **Fabric-strip method —** prime as above. Remove the fabric facing from the upturned section with the hot-air tool, bed the tape onto the exposed core and roll firmly.
- **Completion (both methods) —** apply the selected liquid membrane over the full tape width, lapping a minimum of 50 mm onto sound ACTFLEX 1300R. Tape end joins overlap a minimum of 50 mm.

Membrane termination

All termination detailing complies with AS 4654 for external work and AS 3740 for internal wet areas, or the current FORSPEC recommendation. Contact FORSPEC Technical Services for any termination not covered below.

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Liquid Transition and Membrane Termination (continued)

- **Vertical — pressure bar:** fix at maximum 150 mm centres over the membrane top edge and seal the top edge with ACTFLEX MS PRO. Height per AS 4654 Appendix A.
- **Vertical — reglet and over-flashing:** minimum 15 mm x 15 mm reglet, dress in an over-flashing, fix with PROBOND 1100 or seal with ACTFLEX MS PRO where movement is expected.
- **Vertical — direct reglet:** burn back the fabric on the section entering the reglet, insert and fill with PROBOND 1100.
- **Horizontal:** terminate into a minimum 15 mm x 15 mm reglet, having burned back the fabric on the entering section. Fill with PROBOND 1100 for a rigid fill, or ACTFLEX MS PRO where the joint is subject to movement.
- **All other conditions —** downturns, parapet capping, cavity flashing and door openings follow AS 4654.

Cavity Flashing and Damp-Proof Course Installation

ACTFLEX 1300R is supplied cut to width as a cavity flashing and damp-proof course for masonry, masonry veneer and cavity brick construction, installed in accordance with AS/NZS 2904, AS 3700 or AS 4773.2 as applicable, and NCC Housing Provisions Part 5.7. The weldable lap is the advantage over a conventional DPC material: joints are fused rather than overlapped dry, so the flashing is continuous along its full run and around every stop end.

- **Width —** cut the flashing not less than 20 mm wider than the thickness of the masonry member so it extends the full width of the leaf. Dress the projecting edge down over the external face, or cut it flush once the mortar has set, so the flashing remains visible externally.
- **Base of cavity and sub-floor DPC —** lay the flashing on a clean, level mortar bed and bed the course over it immediately. Position the damp-proof course not less than 75 mm above adjacent paved, concreted or landscaped surfaces that slope away, reduced in accordance with NCC Housing Provisions Part 5.7 where the wall is protected from direct weather.
- **Openings —** sill and head flashings extend not less than 150 mm beyond the reveal on each side, sit not more than one course below the sill brick course, and turn up not less than 150 mm above the opening into the cavity.
- **Upturn and fixing —** carry the cavity flashing across the cavity and turn it up the inner leaf or frame, fixing the upturn at maximum 600 mm centres. Keep the cavity a minimum of 25 mm and free of mortar droppings and obstructions.
- **Laps —** lap all joints a minimum of 150 mm and heat-weld the lap for a continuous flashing. Where welding access is restricted, seal the lap with ACTFLEX SA TAPE or ACTFLEX MS PRO.
- **Stop ends —** form a stop end at each end of every flashing run and at every change of direction, turned up a minimum of 50 mm and welded or sealed closed so water is discharged through the weepholes and not into the cavity beyond.
- **Weepholes —** provide weepholes in the course immediately above every flashing and damp-proof course, a minimum of 50 mm high by the width of the vertical mortar joint, at not more than 1.2 m centres. Keep them clear of mortar.
- **Penetrations and junctions —** form sill tray corners, window and door jamb returns and service penetrations from cut strips of the membrane welded in, in accordance with the Joints and detailing section.

Checks before the following course is laid: flashing continuous and welded at every lap and stop end, upturn fixed and supported, cavity clear, weephole positions set out, projecting edge dressed or marked for cutting.

Seam Inspection and Quality Control

- Probe every seam along its full length with a blunt seam probe once cool. The probe must not enter the seam at any point.
- Cut and peel-test trial weld samples at the start of each day and whenever conditions change.
- Visually inspect the full membrane area for cold welds, overheated welds, skips, fishmouths, wrinkles, punctures and mechanical damage.
- Sound the membrane for hollow and drummy areas indicating incomplete adhesive bond to the substrate.
- Cut out and reinstate any defective seam or damaged area with a welded patch, lapped and welded on all sides, and re-probe the repair.
- Confirm every termination, penetration, corner and upstand is welded and sealed.
- Record the inspection, the trial weld results and all repairs on the project quality records before flood testing.

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Coverage and Yield

ITEM	VALUE	BASIS
Membrane gauge	1.3 mm	—
Roll size	1.4 m x 20 m x 1.3 mm	—
Roll gross area	28 m^2	1.4 m x 20 m
Effective coverage per roll	27.2 m^2	1.36 m effective width x 20 m, after the 40 mm welded side lap
Practical coverage per roll	Approximately 25–26 m^2	Allowing for end laps, upturns, details and wastage
ACTFLEX 301 ADHESIVE — coverage	4–7 m^2/L per coated face	Applied to both substrate and membrane underside
ACTFLEX 301 ADHESIVE — practical demand, single coat	Approximately 0.29–0.50 L per m^2 of membrane	2 coated faces ÷ 4–7 m^2/L
ACTFLEX 301 ADHESIVE — practical demand, two-coat method	Approximately 0.57–1.00 L per m^2 of membrane	Double the single-coat demand

Adhesive demand governs ordering and is easily underestimated: the adhesive is applied to both the substrate and the membrane underside, so one square metre of membrane consumes two square metres of coated area per coat. Where the two-coat maximum-adhesion method is specified, demand doubles again. Confirm actual consumption on a trial area before ordering.

Quantity take-offs must allow for upstands, corner cut-offs, detail strips, penetration collars and cutting waste — a minimum of 10% over the effective area on a simple rectangular floor, and substantially more on cut-up wet areas with numerous penetrations and upstands.

Drying, Curing and Testing Times

All times below are measured at 25°C and 50% RH. Low temperature, high humidity and poor ventilation extend every stage — verify on site before proceeding.

STAGE (AT 25°C, 50% RH)	TIME
ACTFLEX 301 ADHESIVE — flash off before bedding	Until tacky with no wet transfer; re-coat if the adhesive skins over first
ACTFLEX 301 ADHESIVE — first coat dry before second coat	Fully dry (two-coat maximum-adhesion method)
ACTFLEX EP250 primer — cure before adhesive	Full cure per the ACTFLEX EP250 TDS. Do not proceed early.
Lap welding	Immediately after bonding, once lap faces are clean and dry
Seam cooling before probing	Until the seam is cool to the touch
Ready for tiling, screeding and flood testing	1 hour after installation
Flood test duration	24 hours
Ready for covering	After a successful flood test

Allow cold rolls to reach ambient temperature before unrolling — a cold butyl rubber sheet is stiff and difficult to dress into corners. High humidity extends flash-off; do not bed the sheet before both coated faces are tacky.

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Flood Testing

Flood test from one hour after installation, once all laps are welded, all detailing is complete and every seam has been probed — and before any covering, tiling or screed is placed.

Plug all drains and outlets and install temporary barriers to contain the water. Flood to a minimum depth of 50 mm at the highest point of the membrane and retain the water for 24 hours, inspecting the underside and perimeter for leakage throughout. On completion, release the water, remove plugs and allow the surface to dry before covering. Rectify any defect by welded patch repair, re-probe the repair and re-test before proceeding. Conduct testing in accordance with the project specification and AS 3740:2021 or AS 4654.2 as applicable.

Tiling, Screeds and Finishes

- **Direct tiling**
  The upper nonwoven fabric face is a mechanical key and accepts tile adhesive directly — no primer, no abrasion and no separating layer is required. Fix tiles with ACTFLEX BIOSET or a compatible cement-based tile adhesive from one hour after installation, in accordance with AS 3958:2023, verifying adhesive coverage by periodic lift checks.
- **Screeding**
  Screeding may commence 1 hour after installation once the membrane surface is sound, dry and clean. Bonded sand/cement screeds bond directly to the fabric face: use FORSPEC SCREEDX, FORCEM SCREED BINDER or ACTFLEX CRYSTAL BOND in accordance with the relevant product TDS for mix ratio, minimum thickness and application method. Unbonded screeds are a minimum of 40 mm per AS 3958.1, reduced to 35 mm with FORSPEC SCREEDX, with thicknesses below 35 mm requiring written FORSPEC approval; reinforcing mesh is laid between screed layers, never directly on the membrane. Rapid-set or engineered screed products must not be laid directly onto the membrane unless FORSPEC Technical Services has confirmed compatibility. For epoxy-based screeds, refer to the specific epoxy screed TDS.
- **Liquid membrane finish**
  The FORSPEC liquid membrane range may be applied directly over the upper fabric face without primer or further preparation, forming a hybrid system where the sheet provides the bulk membrane and the liquid resolves complex detailing.
- **Pedestal paver and timber decking systems**
  The membrane's tear resistance suits pedestal and paver systems. Confirm pedestal spacing and load points with the pedestal manufacturer and the project structural engineer before setout. Install a rubber isolation pad beneath every pedestal foot to distribute point loads, never place or drag pedestal bases directly on the unprotected membrane, and inspect the full membrane for damage before pedestals are placed. Timber decking is installed over the membrane with the specified bearer and protection arrangement.
- **Landscaped and below-fill areas**
  Cover the membrane with a FORSPEC-approved drainage cell and filter fabric, or protection board, before placing fill, growing medium or loose coverings. Never place these materials directly on the membrane. Planter boxes with large trees or aggressive roots require written confirmation from FORSPEC Technical Services.

Clean Up

Remove offcuts, packaging and swarf from the completed membrane as the work proceeds. Clean adhesive from tools and equipment while wet, using a solvent permitted by the ACTFLEX 301 ADHESIVE Safety Data Sheet, handled in accordance with the Work Health and Safety Regulations with ignition sources controlled. Once cured, adhesive can only be removed mechanically.

Clean welding equipment nozzles and rollers per the equipment manufacturer's instructions. Clean the finished membrane surface with clean water and a mild detergent; do not use solvent cleaners or abrasive pads on the fabric face, which will damage the key that the finish relies on.

Do not allow solvent, adhesive residue or wash water to enter sewers, stormwater systems or waterways. Manage and dispose of all washings in accordance with the relevant State or Territory environment protection legislation and local council requirements.

Container and Waste Disposal

Membrane offcuts, core tubes and packaging are inert and may be disposed of as construction waste in accordance with local council requirements, or through construction and demolition recycling where accepted. Do not burn offcuts or packaging.

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Container and Waste Disposal (continued)

Dispose of adhesive containers, solvent residues and contaminated rags in accordance with the ACTFLEX 301 ADHESIVE Safety Data Sheet, the WHS Regulations, the relevant State or Territory EPA requirements and local council regulations. Solvent-contaminated rags present a fire risk and must be stored in a sealed metal container pending disposal. Never discharge to sewer, stormwater, soil or waterways.

Quality Records

Record and retain the following as part of the project quality assurance records and as a condition of warranty eligibility.

- Batch numbers of all FORSPEC products used — membrane, adhesive, primer, sealants and tapes. Batch numbers are printed on the roll packaging and container and provide full manufacturing traceability.
- Substrate type, preparation method and substrate moisture readings with the test method used.
- Primer system applied, date and time primed, and date and time overcoated, where priming was required.
- Confirmation that ACTFLEX EP250 was fully cured before adhesive application.
- Ambient and substrate temperature and relative humidity at each stage of installation.
- Adhesive batch numbers, coverage rate achieved, and whether the single-coat or two-coat method was used.
- Membrane layout record showing sheet direction, lap positions and lap widths as installed.
- Crack, junction and penetration details completed prior to the field membrane.
- Trial weld records — date, ambient conditions, weld temperature and speed established, and peel-test result.
- Seam probe inspection records covering the full length of every seam, and details of every weld defect cut out and reinstated.
- Flood test date, duration, result and any rectification carried out and re-tested.
- Membrane termination heights at floor perimeters and wet-area walls.
- Name and licence details of the applicator, and sign-off of each hold point.

Storage

Store rolls upright on end, on a clean flat surface, under cover and protected from direct sunlight, rain, dust and mechanical damage, between 5°C and 35°C. Do not stack rolls horizontally — a roll stored on its side will flatten and take a permanent set that cannot be relaxed out on site. Do not stack pallets.

Keep rolls in their original packaging until required, clear of the ground and away from solvents, oils and any source of heat or ignition. Protect from freezing conditions and allow cold rolls to reach ambient temperature before unrolling. Inspect every roll for punctures, crushing and edge damage before it goes to the floor.

Shelf life is a minimum of sixty (60) months from the date of manufacture in unopened original packaging under these conditions. Store ACTFLEX 301 ADHESIVE sealed and upright and use within the period stated on the pail label. Store away from food, drink and animal feedstuffs, and stock rotate on a first-in, first-out basis.

Safety Precautions and First Aid

ACTFLEX 1300R is classified per its current Safety Data Sheet. Read the Safety Data Sheet in full before use — it is available at www.forspec.com.au and governs in the event of any inconsistency with this document. The membrane itself is an inert factory-manufactured butyl rubber sheet. The principal hazards of this system are the solvent-based adhesive used to bond it, hot-air welding, cutting and working at height.

Handling

ACTFLEX 301 ADHESIVE is solvent-based: read its Safety Data Sheet in full before use and observe its ventilation, ignition-source control, skin protection and respiratory protection requirements. Solvent vapour is heavier than air and accumulates in pits, basements and enclosed wet areas — provide mechanical extraction in enclosed spaces and never use the adhesive in a confined space without a confined-space assessment.

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Safety Precautions and First Aid (continued)

Eliminate all ignition sources while adhesive is wet. Hot-air welding equipment operates at temperatures capable of causing severe burns and igniting solvent vapour — never weld while adhesive solvent is still flashing off, wear heat-resistant gloves and eye protection, and never direct the nozzle at any person. Cutting the sheet requires sharp blades used away from the body, with cut-resistant gloves. Observe safe manual handling for rolls. Roof, deck and balcony work requires fall protection and edge protection in accordance with the WHS Regulations. Wash hands thoroughly before breaks and after finishing work.

First aid

- **Burns from welding equipment or hot membrane —** cool the burn under running water for at least 20 minutes. Do not apply ice or ointments. Seek medical attention for any burn that blisters or is larger than a coin.
- **Eyes —** rinse cautiously with water for several minutes, holding the eyelids apart. Seek medical attention if irritation persists.
- **Skin contact with adhesive —** remove contaminated clothing and wash the affected area thoroughly with soap and water. Do not use solvents on skin. Seek medical attention if irritation persists.
- **Inhaled —** remove the person to fresh air and keep at rest in a position comfortable for breathing. Seek immediate medical attention if drowsiness, dizziness or breathing difficulty occurs.
- **Swallowed —** do not induce vomiting. Rinse the mouth with water and seek immediate medical attention.
- **Cuts —** control bleeding, clean the wound and seek medical attention for any deep or contaminated cut.

POISONS INFORMATION CENTRE: 13 11 26 (Australia-wide, 24 hours)

Keep Out of Reach of Children

In an emergency call 000.

Warranty

Standard Product and Performance Warranty: Forspec Protective Coatings Pty Ltd as Trustee for Forspec Protective Coatings (ABN 11 204 033 631) warrants that ACTFLEX 1300R will be free from manufacturing defects and will not fail under normal usage for a period of fifteen (15) years from the date of purchase, extending to twenty (20) years where the system is installed with the detailing and component specification nominated by Forspec for the project. The applicable period is determined by Forspec on assessment of the project and is stated in writing before works commence. In each case the product must be installed and used strictly in accordance with this Technical Data Sheet and Forspec's written instructions. This warranty covers the supply of the product only; it does not cover installation, application or workmanship. Remedies are limited, at Forspec's discretion, to replacement of the defective product (or defective portion) or a refund of the purchase price. The full terms, conditions and exclusions are set out in the Forspec Standard Product and Performance Warranty, available at www.forspec.com.au — key conditions include application by a suitably qualified and, where required by law, licensed applicator; use within shelf life; and installation as part of a Forspec approved system without non-approved third-party products.

Project and system warranties: extended project-specific warranties are available at the request of the applicator and must be applied for using the Forspec Warranty Request Form prior to commencement of works. Issue is subject to Forspec approval and is conditional on the use of the complete specified FORSPEC system, application in strict accordance with the current TDS by suitably qualified applicators, and completion of the project quality records described above. The warranty period and terms are as stated in the issued warranty certificate.

Claims: notify Forspec in writing within thirty (30) days of discovery of the alleged defect and within the warranty period, by post to 22/872 Canterbury Road, Roselands NSW 2196 or by email to info@forspec.com.au, including proof of purchase, installation details (date, location, installer), a description of the defect with supporting evidence, and your contact details. Forspec may inspect the site, perform testing and collect samples before determining a claim.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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Data Sheet Currency

This Technical Data Sheet (TDS) and the corresponding Safety Data Sheet (SDS) are subject to revision as necessary to ensure compliance with relevant Australian Standards and to incorporate technological advancement. Read the most current versions before use, as application and performance data may be updated. For the latest technical information, contact Forspec Protective Coatings on (02) 8021 3517 or info@forspec.com.au. The information provided is representative and does not serve as a comprehensive specification. For specific projects, consult directly with Forspec Protective Coatings for tailored specifications. This data sheet was issued on 02/10/2026 and is valid for three years from the date of issue unless superseded by a later revision — always confirm the current version at www.forspec.com.au before use.

Conditions of Use, Product Disclaimer, and Statement of Responsibility

1. Accuracy of information. The information in this document is provided in good faith by Forspec Protective Coatings Pty Ltd as Trustee for Forspec Protective Coatings (ABN 11 204 033 631) ('Forspec Protective Coatings') and is, to the best of its knowledge, true and accurate at the date of issue. Forspec Protective Coatings reserves the right to amend this document without notice as part of its continuous product development.

2. Suitability and user responsibility. Substrates, site conditions, workmanship and conditions of use are beyond Forspec Protective Coatings' control. No representation or warranty is made as to the suitability of the product for any particular application. The user must determine the suitability of the product for the intended use by their own assessment and, where appropriate, testing prior to application.

3. Currency of document. It is the responsibility of the customer and the applicator to confirm that this document and the corresponding Safety Data Sheet are the current versions, available at www.forspec.com.au. This document supersedes all previous versions.

4. Compliant use and application. The product must be used strictly in accordance with this document, the relevant Australian Standards, the National Construction Code and all applicable laws and regulations, and must be applied by suitably qualified personnel.

5. Statutory guarantees. Nothing in this document excludes, restricts or modifies any consumer guarantee, right or remedy conferred by the Australian Consumer Law (Schedule 2 of the Competition and Consumer Act 2010 (Cth)) or any other statutory right that cannot lawfully be excluded.

6. Limitation of liability. To the fullest extent permitted by law: (a) all other warranties, conditions and representations, express or implied, are excluded; (b) the total liability of Forspec Protective Coatings for any claim arising out of or in connection with the supply or use of the product is limited, at its election, to the replacement of the product, the supply of an equivalent product, or the refund of the purchase price paid; and (c) Forspec Protective Coatings will not be liable for any indirect, special or consequential loss, including loss of profits, arising from the use of, or inability to use, the product.

7. Advice and recommendations. Any advice, recommendation, information or assistance provided by Forspec Protective Coatings, whether verbal or written, is given in good faith but without liability beyond that stated in clause 6.

8. Governing law. This document, and any claim arising out of or in connection with the supply or use of the product, is governed by and interpreted in accordance with the laws of New South Wales, Australia. Any disputes arising from or relating to this document or the product are subject to the exclusive jurisdiction of the Courts of New South Wales, consistent with the Forspec Standard Product and Performance Warranty.



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