FORSPEC PROTECTIVE COATINGS

ACTFLEX 727 SEP.



Technical Data Sheet | **Two-Component, Low-Volatile Epoxy Sealing Primer for Damp Substrates** | **Issue date: 12 November 2026**

Description

ACTFLEX 727 SEP is a two-component, low-volatile epoxy sealing primer formulated from an epoxy resin base and a modified amine hardener. It cures in damp conditions and is applied directly to damp substrates, penetrating deeply to seal pores, micropores and fine surface cracks and consolidate the surface into which it is drawn. The cured film has low shrinkage, good toughness and adhesion above 1.5 MPa, and withstands 360 hours of immersion in saturated calcium hydroxide solution and 360 hours of water immersion without change.

It is formulated to bond epoxy and polyurea chemistry to the substrate, eliminating the delamination that follows poor adhesion between a sprayed coating and a porous, dusty or damp surface. Applied by roller, brush or trowel at 0.3 to 0.35 kg per square metre, it is walkable and ready to overcoat within 24 hours.

Advantages

- Cures in damp conditions and is applied directly to damp substrates - no drying-out hold on the programme.
- Low-volatile - 5% or less volatile content, with low odour through the building.
- Deep penetration - seals pores, micropores and fine surface cracks, and suppresses the outgassing that causes pinholing in the coat above.
- Adhesion above 1.5 MPa with low shrinkage and good film toughness.
- Alkali resistant - no change after 360 hours immersed in saturated calcium hydroxide solution.
- Water resistant - no change after 360 hours water immersion.
- Bonds reliably to polyurea and epoxy coatings, preventing delamination of the coating above.
- Applied by roller, brush or trowel - no specialist equipment required.
- Walkable and overcoatable within 24 hours.

Uses

- Sealing primer for concrete, render and masonry beneath FORSPEC polyurea coatings, including ACTFLEX 737 PU, and beneath ACTFLEX 747 TC.
- Priming of damp substrates where a drying period is not available to the programme.
- Priming of non-porous substrates - abraded metal, sound existing coatings and dense concrete - where high adhesion is required.
- Sealing of porous, dusty and open-textured substrates that would otherwise outgas through the coating above.
- Consolidation of weak or friable surfaces prior to coating.
- Below-ground structures, basements, lift pits, tank and bund interiors and other damp environments.

Limitations

- Damp substrates only - not standing water. Remove all free and ponded water before priming. The product tolerates a damp surface; it will not displace water.
- Not a moisture barrier. Where substrate moisture exceeds 80% RH (ASTM F2170), 15 g/m²/24 h (ASTM F1869) or 4.5% on a non-destructive moisture meter, apply a minimum of two coats of ACTFLEX EP250 in accordance with its TDS.
- Pot life is 30 minutes from mixing, and 15 minutes in high ambient temperature. Mix only what can be applied within that window - the product cannot be revived once it has begun to gel.
- Mix by mechanical mixer only, and for no longer than 2 to 3 minutes in hot weather. Extended mixing accelerates the exotherm and shortens the working time.

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Limitations (continued)

- Weigh both components. The ratio is 3.5 : 1 by weight, not by volume - measuring by volume will produce an off-ratio, soft or uncured film.
- Do not split kits or part-mix a set unless both components are weighed accurately.
- Concrete must be a minimum of 28 days old before priming.
- Do not apply below 10°C or above 30°C, above 85% relative humidity, or within 3°C of the dew point.
- Not UV stable and not a finished surface - the primer must be overcoated and must never be left exposed in service.
- Overcoat after full dry and within 24 hours of full dry. Where the window is exceeded, or the primed surface has been contaminated or rained on, abrade and re-prime.
- Dilution is prohibited unless approved in writing by an authorised FORSPEC representative.
- Keep Part A and Part B free of cross-contamination in storage and on site - contaminated components will not cure.
- Do not apply over silicone, bituminous surfaces or products, or over coatings that are not sound and fully bonded.

System Components

ACTFLEX 727 SEP is applied as part of a complete FORSPEC system. Approved system components:

- Coating - ACTFLEX 737 PU spray-applied polyurea, ACTFLEX 747 TC, and other FORSPEC polyurea and epoxy coatings as nominated in the relevant system specification.
- Moisture suppression - ACTFLEX EP250 epoxy primer where substrate moisture exceeds the limits stated under Limitations.
- Repair - FORBUILD 100 and FORCRETE 100 (concrete reinstatement); PROBOND 1100, CRACK PRO 1200PS and CRACKLOCK E400L (structural crack rectification).
- Blinding aggregate - clean, oven-dried quartz sand where a mechanical key is required into the coating above.

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.

Compliance Status

No Australian Standard prescribes performance requirements for low-volatile epoxy sealing primers of this type. Compliance of the completed system is carried by the coating applied over ACTFLEX 727 SEP, in accordance with that product's Technical Data Sheet and the compliance pathway established by the designer for the project.

The performance values stated in this document are typical characteristic values determined by FORSPEC R&D on standard production material.

Technical Data

PROPERTY	VALUE	BASIS
Product type	Two-component, low-volatile epoxy sealing primer for damp substrates	—
Composition	Epoxy resin with additives (Part A); modified amine with additives (Part B)	—
Mixing ratio	3.5 : 1 by weight (Part A : Part B)	—
State in the container	Homogeneous after mixing, free of lumps	FORSPEC R&D *
Volatile content	5% or less	FORSPEC R&D to GB/T 16777 *
Adhesion	1.5 MPa or greater	FORSPEC R&D to GB/T 16777 *
Alkali resistance	No change after 360 hours immersed in saturated $Ca(OH)_2$ solution	FORSPEC R&D to GB/T 9265 *
Water resistance	No change after 360 hours water immersion	FORSPEC R&D to GB/T 1733 *

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Technical Data (continued)

PROPERTY	VALUE	BASIS
Coating appearance	Normal - continuous, free of defects	FORSPEC R&D *
Pot life (at 25°C, 50% RH)	30 minutes from mixing; 15 minutes in high ambient temperature	FORSPEC R&D to ISO 9514 *
Surface dry (at 25°C, 50% RH)	4 hours or less	FORSPEC R&D to GB/T 16777 *
Full dry (at 25°C, 50% RH)	24 hours or less	FORSPEC R&D to GB/T 16777 *
Overcoat window	After full dry, and within 24 hours of full dry - abrade and re-prime beyond	—
Consumption	0.3-0.35 kg/m² on sound concrete of normal porosity	—
Application method	Roller, brush or trowel	—
Application temperature	10-30°C ambient and substrate; substrate a minimum of 3°C above dew point	—
Application humidity	85% RH maximum; no standing water on the substrate	—
Packaging	4.5 kg set - Part A 3.5 kg, Part B 1 kg	—
Storage temperature	5-35°C	—
Shelf life	12 months, unopened, stored at 5-35°C	—

* Typical characteristic values determined by FORSPEC R&D on standard production material at 25°C and 50% relative humidity. Not to be relied upon for engineering design without written confirmation from FORSPEC Technical Services.

Substrates and Compatibility

SUBSTRATE	REQUIREMENT
Concrete	Cured minimum 28 days; sound and structurally adequate; CSP 3-5 by mechanical preparation; damp acceptable, no standing water
Renders and screeds	Cured minimum 7 days; sound, non-friable and free of hollow or drummy areas
Masonry, brickwork and blockwork	Sound, fully pointed and mechanically prepared; voids filled and finished flush
Steel and metal	Abrasive blast to Sa 2½ (AS 1627.4 Class 2½); prime within the blast-to-prime window before flash rusting
Existing sound coatings	Abraded, clean and fully bonded; adhesion trial required before proceeding

Not approved: particleboard, platform floor sheeting and chipboard; bituminous and silicone-contaminated surfaces; friable, delaminating or unsound substrates; surfaces carrying standing water.

Surface Preparation

- Substrate acceptance - confirm all substrates are structurally sound and within tolerance before priming begins. Application of the primer constitutes acceptance of the substrate.
- Surface condition - the surface must be clean and free of standing water, dirt, dust, laitance, oils, grease, wax, mould, curing compounds, release agents, existing coatings, adhesives, loose particles, rust, paint and efflorescence.
- Mechanical preparation - prepare concrete by captive-blast, grinding or scarifying to an open profile of CSP 3-5, then vacuum-clean. Prepare steel by abrasive blasting to Sa 2½.
- Repairs - reinstate damaged and spalled concrete with FORBUILD 100 or FORCRETE 100 and allow all repairs to cure before priming.

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Surface Preparation (continued)

- Surface profile - grind off high points, fins and protrusions. Fill blowholes, honeycombing and surface imperfections with a FORSPEC repair mortar and finish flush.
- Moisture - remove all free and ponded water, measure substrate moisture and confirm it is within the limits stated under Limitations.

Mixing

Weigh Part A and Part B separately into clean containers at 3.5 : 1 by weight - 3.5 parts Part A to 1 part Part B. Combine the components and mix mechanically at low speed until the blend is completely homogeneous and free of lumps, streaks and unmixed material, scraping the sides and base of the container. In hot weather limit mixing to 2 to 3 minutes.

Use the mixed material within 30 minutes at 25°C and 50% RH, and within 15 minutes in high ambient temperature. Do not add solvent, water, pigment or any other material, and do not attempt to revive material that has begun to thicken.

Application

Apply the mixed primer by roller, brush or trowel at 0.3 to 0.35 kg/m², working it firmly into the surface texture so it is drawn into the pores rather than left on the surface. Cover the full area continuously with no misses, and avoid ponding in low points and blowholes. Where the substrate is open, porous or profiled, blind the wet primer with clean, oven-dried quartz sand to full refusal and remove all loose aggregate once cured. Allow 24 hours for full dry before the next stage. Overcoat within 24 hours of reaching full dry; where that window is exceeded, or the primed surface has been contaminated or rained on, abrade and re-prime.

PARAMETER	REQUIREMENT
Mixing ratio	3.5 : 1 by weight (Part A : Part B) - weighed, not measured by volume
Pot life	30 minutes at 25°C and 50% RH; 15 minutes in high ambient temperature
Application method	Roller, brush or trowel
Number of coats	One coat as a sealing primer
Consumption	0.3-0.35 kg/m² on sound concrete of normal porosity
Blinding	Oven-dried quartz sand to full refusal where a mechanical key is required
Overcoat	After full dry (24 hours), and within 24 hours of full dry
Dilution	Prohibited unless approved in writing by an authorised FORSPEC representative

Consumption, Coverage and Yield

Consumption is 0.3 to 0.35 kg/m² on sound concrete of normal porosity, applied as a single sealing coat. A 4.5 kg set contains 3.5 kg of Part A and 1 kg of Part B. Practical yield allows 10% for wastage.

MEASURE	VALUE	BASIS
Consumption - low porosity	0.30 kg/m²	Single sealing coat
Consumption - normal to open porosity	0.35 kg/m²	Single sealing coat
Theoretical yield - 4.5 kg set	12.9-15.0 m²	4.5 kg ÷ 0.35 and ÷ 0.30 kg/m²
Practical yield - 4.5 kg set	11.6-13.5 m²	Theoretical × 0.90

Rough, porous, profiled and mechanically prepared substrates consume materially more - establish the actual rate on a project trial area. Continuous, fully sealed coverage controls acceptance, not the quantity of material used.

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Cure and Service Times

All times below are stated at 25°C and 50% RH and run from completion of application. Low temperature, high humidity and damp substrates extend every stage.

STAGE (AT 25°C, 50% RH)	TIME
Pot life from mixing	30 minutes; 15 minutes in high ambient temperature
Surface dry	4 hours or less
Full dry - walkable, ready to overcoat	24 hours or less
Overcoat window	Within 24 hours of full dry - abrade and re-prime beyond
Full chemical cure	7 days

Clean Up

Clean tools, rollers, brushes, trowels and mixing equipment immediately while the primer is still wet, using a suitable solvent handled in accordance with the WHS Regulations and the solvent manufacturer's SDS. Once cured, ACTFLEX 727 SEP can only be removed mechanically. Do not discharge product, solvent or wash water to sewers, stormwater or waterways.

Container and Waste Disposal

Dispose of product and containers in accordance with the WHS Regulations, State or Territory EPA requirements and local council regulations. Uncured Part A and Part B are classified waste - deliver to an authorised hazardous or special waste collection point. Small quantities of residual mixed product may be cured out in a ventilated area away from ignition sources and disposed of as solid waste where permitted. Do not reuse or burn containers. Refer to Section 13 of the SDS.

Quality Records

Record the batch numbers of Part A and Part B, substrate preparation and moisture readings, weighed quantities and mix times, application dates and ambient conditions including temperature, relative humidity and dew point, consumption achieved against the specified rate, and the time the coating above was applied against the overcoat window, as part of the project quality assurance records.

Storage

Store Part A and Part B in original, sealed containers in a cool, dry, well-ventilated place between 5°C and 35°C, out of direct sunlight and protected from rain, frost and physical damage. Keep away from ignition sources and heat. Store the two components so that cross-contamination cannot occur. Reseal partly used containers immediately. Shelf life is 12 months from the date of manufacture when stored as specified.

Safety Precautions and First Aid

ACTFLEX 727 SEP is classified as hazardous. Part A contains epoxy resin and Part B contains a modified amine hardener. Both components cause skin and eye irritation, and epoxy resins are skin sensitisers - once a person is sensitised, further contact may provoke a severe reaction. The amine hardener is alkaline and causes burns on prolonged contact. Persons with a history of skin sensitisation or dermatitis must not be exposed. Ensure good ventilation, keep away from sparks and open flame, and prohibit smoking in the work area.

Wear chemical-resistant gloves, protective clothing with sleeves, safety footwear and sealed eye protection when handling, weighing, mixing or applying either component. Where ventilation is restricted, wear respiratory protection to AS/NZS 1715 and AS/NZS 1716. Do not eat, drink or smoke when using this product.

First aid - Eyes: flush immediately with plenty of water for at least 15 minutes and seek immediate medical attention. Skin: remove contaminated clothing and wash with soap and water; do not use solvent on skin. Inhalation: move to fresh air; seek medical attention

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Safety Precautions and First Aid (continued)

if breathing difficulty occurs. Swallowed: do not induce vomiting; rinse mouth. POISONS INFORMATION CENTRE: 13 11 26 (Australia-wide, 24 hours). In an emergency, dial 000. KEEP OUT OF REACH OF CHILDREN. Read the Safety Data Sheet (SDS) for both components before use - available at www.forspec.com.au.

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 727 SEP will be free from manufacturing defects and will not fail under normal usage for a period of ten (10) years from the date of purchase, when 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.

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 12/11/2026 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.

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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.

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Conditions of Use, Product Disclaimer, and Statement of Responsibility (continued)

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