ACTFLEX ULTRA SHIELD.



Technical Data Sheet | **Two-Component Polyaspartic Floor Coating for Direct Application to Concrete** | **Issue date: 25 August 2026**

Description

ACTFLEX ULTRA SHIELD is a two-component elastomeric polyaspartic floor coating at 90% solids, applied direct to well-prepared concrete to deliver a seamless, high-strength decorative and protective floor. Polyaspartic chemistry combines an extended pot life with a fast return to service and outstanding resistance to yellowing, so a floor can be coated and handed back inside a single shift without sacrificing durability.

The elastomeric formulation bridges hairline cracks and absorbs minor substrate movement rather than telegraphing it, while delivering robust tensile strength, puncture resistance and high abrasion-resistant vehicular durability. It can be applied as a solid colour or built into a decorative flake system, is available in UV-stable standard colours, and can be finished with enhanced surface friction where slip performance is specified. Suited to permanent immersion, food processing floors and heavy industrial service. Supplied in 4 L, 20 L and 40 L packs.

Advantages

- Applied direct to well-prepared concrete — no separate membrane required for the coating duty.
- Fast cure time with an extended pot life — coat and return to service inside a shift.
- High UV stability with outstanding resistance to yellowing.
- Elastomeric formulation bridges hairline cracks and absorbs minor substrate movement.
- High strength, puncture resistance and high abrasion-resistant vehicular traffic durability.
- Seamless finish — eliminates joints and laps.
- Suited to permanent immersion and demonstrates strong hydrostatic resistance.
- Commendable chemical resistance for industrial and food processing environments.
- Available in clear and custom UV-stable colours, with a decorative flake option.
- Straightforward repair and maintenance, with an odourless cured state.

Uses

- Direct-applied protective and decorative floor coating over prepared concrete.
- Garage floors and commercial, industrial and residential flooring.
- Flooring within food processing plants.
- High-wear and traffic-prone environments.
- Permanent immersion situations.
- Decorative flake or solid-colour floor finishes.
- Areas requiring enhanced surface friction, with the specified anti-slip broadcast.

Compliance Status

No accredited certificate is currently held on file for ACTFLEX ULTRA SHIELD. All performance values are published as typical R&D characteristic values.

STANDARD / TEST	STATUS	REFERENCE
ASTM E96 — moisture vapour transmission	Pass — manufacturer data	Forspec R&D *
Fatigue cracking	Pass — manufacturer data	Forspec R&D *

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Compliance Status (continued)

STANDARD / TEST	STATUS	REFERENCE
Physical and chemical damage resistance	No damage recorded — manufacturer data	Forspec R&D *
Slip resistance	Not rated as supplied — an anti-slip broadcast is required to achieve a designed rating	Design responsibility of the specifier
VOC certification	Not currently held	Certificate to be commissioned

Technical Data

Certified values are stated against their governing report. All other values are typical R&D characteristic values and are asterisked.

PROPERTY	VALUE	BASIS
Product type	Two-component elastomeric polyaspartic floor coating	—
Solids content	90%	*
Colour	Clear or custom colours	—
Packaging	4 L, 20 L and 40 L	—
Shore hardness A	93	*
Shore hardness D	56	*
Elongation at break	< 100%	*
ASTM E96 moisture vapour transmission	Pass	*
Fatigue cracking	Pass — no fatigue cracking	*
Physical or chemical damage	None recorded	*
Pot life (at 25°C, 50% RH)	30 minutes	—
Recoat time (at 25°C, 50% RH)	1–4 hours	—
Hard through time (at 25°C, 50% RH)	3.5 hours	—
Full cure (at 25°C, 50% RH)	48 hours	—
Application temperature	+10°C to +30°C	—
Flash point	97°C	*
Coverage	6–8 m^2/L per coat *	*
Maximum substrate moisture	5% *	*
Shelf life	12 months, unopened, stored as specified *	*

ACTFLEX ULTRA SHIELD is the direct-to-concrete floor coating; ACTFLEX ULTRA TC is the topcoat applied over a FORSPEC waterproofing membrane. The two share the same polyaspartic base chemistry and property set and are distinguished by their application, film build and system position.

* Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

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Coverage and Yield

MEASURE	VALUE	BASIS
Coverage per coat	6–8 m²/L *	Polyaspartic floor coating, R&D typical
Consumption per coat	Approx. 0.13–0.17 L/m² *	At 6–8 m²/L
Coverage — 4 L pack	Approx. 24–32 m² one coat *	At 6–8 m²/L
Coverage — 20 L pack	Approx. 120–160 m² one coat *	At 6–8 m²/L
Coverage — 40 L pack	Approx. 240–320 m² one coat *	At 6–8 m²/L
Decorative flake system	Flake broadcast to refusal into the wet base coat, then a clear lock coat *	Flake demand established on the trial area

Coverage varies with substrate porosity, texture and film build. Decorative flake systems consume significantly more clear coat than a solid-colour finish. * Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

Limitations

- Two-component product — mix full kits only and observe the 30-minute pot life; do not part-mix and never re-temper.
- Not slip-resistant as supplied — an anti-slip broadcast is required to achieve a designed slip rating.
- Do not apply below 10°C or above 30°C.
- Do not apply over substrates exceeding the stated moisture limit — apply ACTFLEX EP250 as a two-coat moisture-control system where the limit is exceeded.
- Do not dilute unless approved in writing by an authorised FORSPEC representative.
- Not a structural repair product — cracks and spalling must be reinstated before coating.
- Bridges hairline cracks only; it does not accommodate designed movement joints, which must be carried through the coating.
- All previous paint and resin coatings must be completely removed before application.
- Not a levelling product — the finished surface follows the prepared substrate profile.
- A test area is required where substrate condition, adhesion or finish is uncertain.

Surface Preparation

- Inspect the floor thoroughly and confirm it is structurally sound, clean and free of damage. Check for cracks, holes and surface imperfections that would affect adhesion or performance.
- Remove all contaminants — dust, grease, oil, wax, paint and other residues. Use a degreaser where required, followed by a thorough rinse with clean water, and allow to dry fully.
- Where the surface carries a previous paint or resin coating, remove it completely by sanding, grinding or abrasive blasting.
- Repair all cracks and spalling with a FORSPEC concrete repair system such as FORBUILD 100 or FORCRETE 100, or the FORSPEC epoxy crack repair range — PROBOND 1100, CRACK PRO 1200PS or CRACKLOCK E400L — finished flush and cured.
- Mechanically prepare the substrate by diamond grinding or shot blasting to an open, sound profile and vacuum thoroughly.
- Confirm substrate moisture is within the limit stated in the Technical Data before coating; where the limit is exceeded, apply ACTFLEX EP250 as a two-coat moisture-control system.
- Vacuum the area immediately before application.

Application and Film Build

- Pre-condition both components before mixing and mix full kits only — never part-mix.
- Combine the components and mix with a low-speed mechanical mixer to a uniform, streak-free blend, scraping the sides and base of the container. Do not whip air into the mix.
- Mix only the quantity that can be placed within the 30-minute pot life.
- Apply by roller, brush or spray at 6–8 m² per litre, working to a uniform, continuous film.
- Maintain a wet edge and consistent overlap — polyaspartic films are unforgiving of dry laps.

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Application and Film Build (continued)

- Decorative flake finish: broadcast the flake into the wet base coat to the required density, allow to cure, remove all loose flake by vacuum and scrape, then apply the clear lock coat.
- Where enhanced surface friction is specified, broadcast the anti-slip aggregate into the wet coat and lock it in with a further coat.
- Apply subsequent coats within the 1–4 hour recoat window at 25°C and 50% RH.
- Protect the finished floor from water, contamination and traffic until hard through.
- Inspect the finished film for holidays, pinholes, flake shadowing and inconsistent gloss before releasing the area.

Drying, Curing and Testing Times

All times below are measured at 25°C and 50% RH. Low temperature, high humidity, poor ventilation and substrate porosity extend every stage — verify the primer is fully dry on site before overcoating.

STAGE (AT 25°C, 50% RH)	TIME
Pot life	30 minutes
Recoat window	1–4 hours
Hard through	3.5 hours
Light foot traffic	After hard through *
Full cure	48 hours
Vehicle traffic	After full cure *
Permanent water immersion	After full cure *

* Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

Clean Up

Clean tools and equipment immediately while the product is still wet, wiping down with FORSPEC EPOXY CLEANER or an approved solvent where the Safety Data Sheet permits. Once dry the product is difficult to remove and mechanical means will be necessary. Observe all WHS requirements and the Safety Data Sheet for safe solvent handling. Do not discharge product or wash water into sewers or waterways and do not touch spilled material.

Container and Waste Disposal

Allow residues to fully cure before disposal in accordance with State and local requirements, and route unused product to an authorised waste collection point per Section 13 of the Safety Data Sheet. Do not seal or stopper drums being decontaminated — carbon dioxide is generated and may pressurise the container. Do not reuse contaminated packaging and do not discharge into sewers or waterways.

Quality Records

Record the batch numbers of both components for every kit used, substrate preparation method and profile achieved, substrate moisture readings, primer or moisture-control system applied where required, mixing times, pot life observed, coverage achieved per coat, number of coats, flake or anti-slip broadcast rate where used, application dates and ambient conditions, recoat and cure intervals observed, and final floor inspection results, as part of the project quality assurance records.

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Storage

Store in original, unopened containers in a cool, dry, well-ventilated area, tightly closed and protected from direct sunlight, frost and moisture, with the two components stored so that cross-contamination cannot occur. Shelf life: 12 months from the date of manufacture when stored as specified.*

Safety Precautions and First Aid

Refer to the current Safety Data Sheets before use — Part A and Part B are separately classified. The uncured components cause serious eye damage and skin irritation, and hardener components may cause skin and respiratory sensitisation in susceptible persons. Wear impermeable nitrile gloves, eye and face protection and long-sleeved protective clothing, and use respiratory protection where ventilation is inadequate or where the SDS and workplace risk assessment require it. Ensure good airflow in enclosed and confined areas. Avoid all skin contact with uncured material. The reaction is exothermic — never leave a full mixed kit standing confined in the mixing container. Do not eat, drink or smoke when handling; wash hands before breaks and after work; contaminated work clothing must not leave the workplace. The Chemwatch SDS numbers for this product are to be confirmed — refer to the Change Register.

First aid — Eyes: hold eyelids apart and flush continuously with running water for at least 15 minutes and transport to hospital or a doctor without delay. Skin: remove contaminated clothing and footwear and wash thoroughly with soap and water; seek medical advice if irritation, rash or sensitisation occurs. Inhaled: remove to fresh air and keep comfortable; seek medical attention if respiratory symptoms occur. Swallowed: do NOT induce vomiting; rinse mouth and seek immediate medical attention. 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) 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 ULTRA SHIELD 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.

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Data Sheet Currency (continued)

This data sheet was issued on 25/08/2026 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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