FORSPEC PROTECTIVE COATINGS

ACTFLEX 747 TC.



Technical Data Sheet | **Two-Component, UV-Stable Aliphatic Polyaspartic Polyurea Top Coat for Roofs and Floors** | **Issue date: 12 November 2026**

Description

ACTFLEX 747 TC is a two-component, slow-curing polyaspartic polyurea weathering top coat formulated from a polyaspartic ester amino resin and a modified aliphatic isocyanate. The aliphatic backbone is what makes it colour stable: after 1500 hours of accelerated weathering the film records powdering at level 0 and discolouration at level 1, with no blistering and no cracking. It is the exposure layer - the coat that takes the ultraviolet load so the waterproofing beneath it does not - on roofs and decks, and the hard-wearing, colour-stable top coat on coated floors.

At 70% solids the cured film develops tensile strength above 10 MPa, elongation beyond 300% and tear strength above 40 N/mm, remains crack free when bent at -35°C, and is impermeable under 0.3 MPa of water pressure held for 120 minutes. Unlike a sprayed pure polyurea it has a 30 to 40 minute working time, so it can be brushed, rolled or sprayed and laid off to an even, decorative finish.

Advantages

- Aliphatic polyaspartic chemistry - UV stable and colour stable in permanent exposure.
- 1500 hours accelerated weathering: powdering level 0, discolouration level 1, no blistering, no cracking.
- Waterproof in its own right - impermeable under 0.3 MPa water pressure held for 120 minutes.
- Tensile strength above 10 MPa with elongation beyond 300% and tear strength above 40 N/mm.
- Low-temperature performance - no cracking when bent at -35°C.
- 70% solids, applied in two coats to a total dry film thickness of 0.4-0.5 mm.
- 30 to 40 minute working time - brushed, rolled or sprayed, with time to lay off an even finish.
- Recoatable in 2 to 3 hours - both coats applied in the same day.
- Two duties from one product - the UV top coat over FORSPEC polyurea roof and deck systems, and a colour-stable top coat for floors.
- Grey finish with a clean decorative appearance.

Uses

- UV top coat over ACTFLEX 737 PU and other FORSPEC polyurea coatings wherever the coating is exposed to daylight in service.
- Exposed concrete roofs and roof decks requiring combined waterproofing, weathering and finish.
- Metal and colour-steel tile roofing.
- Water storage tanks, sewage tanks and treatment structures (not potable water).
- Water parks, splash decks and water features.
- Podiums, balconies, walkways and plant decks left exposed.
- Recoating and refurbishment of existing sound polyurea and polyurethane coatings.
- Floor top coat - garages, workshops, warehouses, showrooms and commercial floors, over primed concrete or a sound FORSPEC floor coating.

Limitations

- Shelf life is 6 months - materially shorter than the rest of the FORSPEC range. Order to the programme, rotate stock, and confirm the manufacture date before use.
- Crystallisation may occur in cold storage. This is normal and is reversed by warming the drums with heating belts until the material is uniform. Do not use crystallised or partly crystallised material, and do not warm by direct flame.
- Pot life is 30 to 40 minutes from mixing. Mix only what can be applied inside that window - the material cannot be revived once it has begun to thicken.
- Mix 1 : 1 by weight. The ratio is by weight, not by volume - measuring by volume will produce an off-ratio film that will not develop its stated properties.

FORSPEC PROTECTIVE COATINGS

contact.

(02) 8021 3517 info@forspec.com.au 22/872 Canterbury Road, Roselands 2196 NSW (Head Office) www.forspec.com.au

Limitations (continued)

- Priming is mandatory wherever the product is applied directly to a substrate. It may be applied without primer only over a FORSPEC polyurea that is within its overcoat window.
- Do not apply below 5°C or above 35°C ambient. Where the substrate surface exceeds 30°C, take particular care against dry spray and poor film formation - work in the cooler part of the day.
- Do not apply in the evening or overnight in winter. Application at low temperature causes powdering, cracking, warping and peeling.
- Do not apply in rain or where rain is expected before the film is tack free, and never over standing water.
- Do not apply above 85% relative humidity, or within 3°C of the dew point, during application or cure.
- Never mix or contaminate with water, alcohol or acidic substances.
- Do not apply over silicone, bituminous surfaces or products, or over coatings that are not sound and fully bonded.
- Not for potable water contact.
- Dilution is prohibited unless approved in writing by an authorised FORSPEC representative.
- Concrete must be a minimum of 28 days old before priming.
- Reseal part-used drums immediately and use as soon as possible - both components are moisture sensitive once opened.

System Components

ACTFLEX 747 TC is applied as part of a complete FORSPEC system. Approved system components:

- Base coating - ACTFLEX 737 PU spray-applied polyurea, and other FORSPEC polyurea coatings as nominated in the relevant system specification.
- Primer - ACTFLEX 727 SEP low-volatile epoxy sealing primer, where ACTFLEX 747 TC is applied directly to a substrate rather than over a FORSPEC polyurea within its overcoat window.
- Moisture suppression - ACTFLEX EP250 epoxy primer where substrate moisture exceeds the limits stated under Priming.
- Repair - FORBUILD 100 and FORCRETE 100 (concrete reinstatement); PROBOND 1100, CRACK PRO 1200PS and CRACKLOCK E400L (structural crack rectification).

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 polyaspartic polyurea weathering top coats of this type. Where ACTFLEX 747 TC is applied over a FORSPEC waterproofing system, compliance of the completed system is carried by the base coating in accordance with its 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, slow-curing aliphatic polyaspartic polyurea weathering top coat	—
Composition	Polyaspartic ester amino resin (Part A); modified aliphatic isocyanate (Part B)	—
Mixing ratio	1 : 1 by weight (Part A : Part B)	—
Colour and appearance	Grey. Uniform liquid, free of gelling and hard sediment	FORSPEC R&D *
Solids content	70% or greater	FORSPEC R&D to GB/T 16777 *
Tensile strength	10 MPa or greater	FORSPEC R&D to GB/T 16777 *
Elongation at break	300% or greater	FORSPEC R&D to GB/T 16777 *

contact.

(02) 8021 3517 info@forspec.com.au 22/872 Canterbury Road, Roselands 2196 NSW (Head Office) www.forspec.com.au

Technical Data (continued)

PROPERTY	VALUE	BASIS
Tear strength	40 N/mm or greater	FORSPEC R&D to GB/T 16777 *
Low-temperature bending	-35°C - no cracking	FORSPEC R&D to GB/T 16777 *
Waterproofness	Impermeable at 0.3 MPa held for 120 minutes	FORSPEC R&D to GB/T 16777 *
Accelerated weathering	1500 hours - powdering level 0, discolouration level 1, no blistering, no cracking	FORSPEC R&D, rated to GB/T 1766 *
Pot life (at 25°C, 50% RH)	30-40 minutes from mixing	FORSPEC R&D to ISO 9514 *
Surface dry (at 25°C, 50% RH)	3 hours or less	FORSPEC R&D to GB/T 16777 *
Full dry (at 25°C, 50% RH)	12 hours or less	FORSPEC R&D to GB/T 16777 *
Recoat (at 25°C, 50% RH)	2-3 hours, once tack free	—
Full cure	4-7 days; extend below 10°C	—
Dry film thickness	0.2-0.25 mm per coat; 0.4-0.5 mm total over two coats	—
Consumption	0.30-0.40 kg/m² per coat - refer to Consumption, Coverage and Yield	—
Application method	Brush, roller or spray	—
Application temperature	5-35°C ambient and substrate; substrate a minimum of 3°C above dew point	—
Application humidity	Below 85% RH during application and cure	—
Packaging	40 kg set - Part A 20 kg, Part B 20 kg	—
Storage temperature	-10°C to 35°C, indoors in winter	—
Shelf life	6 months, unopened, stored as specified	—

* 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
FORSPEC polyurea coatings	Applied within the base coating's overcoat window. Beyond that window, abrade and prime with ACTFLEX 727 SEP
Concrete	Cured minimum 28 days; flat, sound and dry; free of cracks, sanding, peeling and surface defects; CSP 2-4; primed
Renders and screeds	Cured minimum 7 days; sound, non-friable and free of hollow or drummy areas; primed
Metal and colour-steel roofing	Abraded and degreased, free of rust and loose coating; primed
Existing sound polyurea and polyurethane coatings	Abraded, clean and fully bonded; adhesion trial required before proceeding

Not approved: bituminous and silicone-contaminated surfaces; friable, delaminating or unsound substrates; surfaces carrying standing water; substrates that have not been primed, other than a FORSPEC polyurea within its overcoat window.

contact.

(02) 8021 3517 info@forspec.com.au 22/872 Canterbury Road, Roselands 2196 NSW (Head Office) www.forspec.com.au

Surface Preparation

- Substrate acceptance - confirm all substrates are structurally sound and within tolerance before coating begins. Application of the coating constitutes acceptance of the substrate.
- Surface condition - the base surface must be flat, hard and dry, and free of grease, oils, dust, laitance, curing compounds, release agents and all other foreign matter.
- Over a FORSPEC polyurea - confirm the base coating is within its overcoat window, clean and free of contamination. Beyond the window, abrade the surface and prime before top coating.
- Mechanical preparation - prepare concrete by grinding or captive-blast to an open profile and vacuum-clean. Abrade and degrease metal and existing coatings.
- Repairs - reinstate damaged and spalled concrete with FORBUILD 100 or FORCRETE 100 and allow all repairs to cure before priming.
- Moisture - remove all free and ponded water and measure substrate moisture before selecting the primer.

Priming

ACTFLEX 747 TC requires a primer on every substrate it is applied to directly. The primer seals the air and moisture held in the surface pores and establishes the adhesion on which the coating depends.

- Over ACTFLEX 737 PU and other FORSPEC polyurea coatings - no primer is required within the base coating's overcoat window, which is 12 hours for ACTFLEX 737 PU. Beyond that window, abrade the surface and prime with ACTFLEX 727 SEP before top coating.
- Concrete, render, masonry, metal and sound existing coatings - prime with ACTFLEX 727 SEP in accordance with its TDS, mixed 3.5 : 1 by weight and applied at 0.3-0.35 kg/m². Allow the primer to reach full dry, and top coat within 24 hours of that point.
- High-moisture substrates - where moisture readings exceed 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.
- Where the primer overcoat window is exceeded, or the primed surface has been contaminated or rained on, abrade and re-prime before coating.

Mixing

Weigh Part A and Part B at 1 : 1 by weight. The ratio is by weight, not by volume, and must be weighed rather than estimated. Combine the components and mix mechanically at low speed until the blend is completely homogeneous and free of streaks, scraping the sides and base of the container. Do not mix at high speed - entrained air causes pinholing in the cured film.

Where the material has crystallised in cold storage, warm the drums with heating belts until the contents are uniform and free of sediment before weighing. Do not warm by direct flame and do not use material that has not fully redissolved.

Use the mixed material within 30 to 40 minutes. Do not add solvent, water, alcohol, acid, pigment or any other material, and do not attempt to revive material that has begun to thicken. Reseal unused Part A and Part B immediately.

Application and Film Build

Apply by brush, roller or spray in two coats to a total dry film thickness of 0.4 to 0.5 mm. Lay the first coat off in one direction with full, even coverage and no misses, runs or ponding. Apply the second coat once the first is tack free - 2 to 3 hours at 25°C and 50% RH - and lay it off at right angles to the first. In winter, apply during the warmest part of the day and never in the evening or overnight. Allow 4 to 7 days after the final coat for full performance, extended below 10°C.

PARAMETER	REQUIREMENT
Mixing ratio	1 : 1 by weight (Part A : Part B) - weighed, not measured by volume
Pot life	30-40 minutes from mixing
Application method	Brush, roller or spray
Number of coats	Two, laid off at right angles to one another
Dry film thickness	0.2-0.25 mm per coat; 0.4-0.5 mm total system
Consumption	0.30-0.40 kg/m² per coat, depending on substrate and specified film build

contact.

(02) 8021 3517 info@forspec.com.au 22/872 Canterbury Road, Roselands 2196 NSW (Head Office) www.forspec.com.au

Application and Film Build (continued)

PARAMETER	REQUIREMENT
Recoat (at 25°C, 50% RH)	2-3 hours, once the previous coat is tack free
Ambient and substrate temperature	5-35°C; particular care where the substrate surface exceeds 30°C
Humidity and dew point	Below 85% RH; substrate a minimum of 3°C above dew point
Dilution	Prohibited unless approved in writing by an authorised FORSPEC representative

Consumption, Coverage and Yield

Consumption is 0.30 to 0.40 kg/m² per coat, depending on substrate porosity, texture, application method and the film build specified. A 40 kg set contains 20 kg of Part A and 20 kg of Part B. The figures below are for the two-coat system, with practical yield at a 10% wastage allowance.

CONSUMPTION PER COAT	TOTAL, TWO COATS	THEORETICAL YIELD - 40 KG SET	PRACTICAL YIELD - 40 KG SET
0.40 kg/m² - full film build	0.80 kg/m²	50 m²	45 m²
0.35 kg/m² - mid range	0.70 kg/m²	57 m²	51 m²
0.30 kg/m² - minimum	0.60 kg/m²	67 m²	60 m²

The specified dry film thickness of 0.4 to 0.5 mm over two coats controls acceptance, not the quantity of material used. Rough, porous and profiled substrates consume materially more - establish the actual rate on a project trial area.

Cure and Service Times

All times below are stated at 25°C and 50% RH and run from completion of the stated coat. Low temperature, high humidity and poor ventilation extend every stage.

STAGE (AT 25°C, 50% RH)	TIME
Pot life from mixing	30-40 minutes
Surface dry	3 hours or less
Recoat - second coat	2-3 hours, once tack free
Full dry	12 hours or less
Light foot traffic	24 hours after the final coat
Full cure and full performance	4-7 days after the final coat; extend below 10°C
Water immersion and chemical service	After full cure

Clean Up

Clean tools, brushes, rollers and spray equipment immediately while the coating is still wet, using a suitable solvent handled in accordance with the WHS Regulations and the solvent manufacturer's SDS. Once cured, ACTFLEX 747 TC 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 drums. Refer to Section 13 of the SDS.

contact.

(02) 8021 3517 info@forspec.com.au 22/872 Canterbury Road, Roselands 2196 NSW (Head Office) www.forspec.com.au

Quality Records

Record the batch numbers and manufacture dates of Part A and Part B, the primer or base coating and its batch number, weighed quantities and mix times, application dates and ambient conditions (temperature, relative humidity, substrate temperature and dew point), the interval between coats, consumption achieved against the specified rate, and dry film thickness readings, as part of the project quality assurance records.

Storage

Store Part A and Part B in original, sealed drums in a dry, well-ventilated place between -10°C and 35°C, out of direct sunlight and away from all sources of ignition. Store indoors through winter. Crystallisation after cold storage is normal and is reversed by warming the drums with heating belts. Reseal part-used drums immediately. Shelf life is 6 months from the date of manufacture when stored as specified.

Safety Precautions and First Aid

ACTFLEX 747 TC is classified as hazardous. Part B contains a modified aliphatic isocyanate and Part A contains a polyaspartic ester amino resin. Both components cause skin and eye irritation. Isocyanate exposure can cause respiratory sensitisation, and once a person is sensitised any further exposure may provoke a severe reaction. Persons with a history of respiratory sensitisation or asthma must not be exposed. Keep the work area well ventilated; spray application requires mechanical extraction and exclusion of unprotected personnel from the spray zone.

Wear chemical-resistant gloves, protective clothing with sleeves, safety footwear and sealed eye protection when handling, weighing, mixing or applying either component. Wear respiratory protection to AS/NZS 1715 and AS/NZS 1716 for brush and roller application in confined or poorly ventilated areas, and supplied-air respiratory protection when spraying. Keep away from sparks and open flame. 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 if breathing difficulty, coughing or wheezing occurs, and advise that exposure was to an isocyanate. 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 747 TC 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.

contact.

(02) 8021 3517 info@forspec.com.au 22/872 Canterbury Road, Roselands 2196 NSW (Head Office) www.forspec.com.au

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.

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), ss 64 and 64A) 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.



Your Trusted Partner.

FORSPEC
PROTECTIVE COATINGS

contact.

FORSPEC
PROTECTIVE COATINGS

(02) 8021 3517 info@forspec.com.au 22/872 Canterbury Road, Roselands 2196 NSW (Head Office) www.forspec.com.au