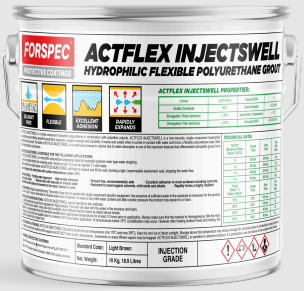
ACTFLEX INJECTSWELL.



FORSPEC PROTECTIVE COATINGS

Technical Data Sheet | **Single-Component Hydrophilic Polyurethane Injection Grout** | **Issue date: 12 November 2026**

Description

ACTFLEX INJECTSWELL is a single-component hydrophilic polyurethane injection grout formulated with polyether polyols to combine low viscosity with high resilience. At 450–600 mPa·s it penetrates fine fissures that paste and gel grouts cannot enter, then reacts on contact with water and swells to form a flexible polyurethane seal within the crack rather than merely coating it.

The capacity to swell and increase in volume through water absorption is what separates hydrophilic grouts from their hydrophobic counterparts: the seal continues to respond to water rather than sitting inert, and it accommodates movement in the crack, fracture or joint it occupies. Reaction is rapid — cream time of 48 seconds and rise complete within five to six minutes — with free rise ratios from 4.3 to 6.4 times depending on the water-to-resin ratio. It adheres strongly to concrete, brick and mortar, resists most organic solvents, mild acids and alkalis, and reacts even with seawater and mineral water. Supplied in 10 kg packs.

Advantages

- Low viscosity at 450–600 mPa·s drives penetration into fine fissures that paste grouts cannot enter.
- Swells on water contact to form a flexible seal within the crack, not a coating over it.
- Free rise ratios of 4.3 to 6.4 times, controllable by water-to-resin ratio.
- Rapid reaction — 48 second cream time with rise complete in five to six minutes.
- High tensile adhesion to most surfaces including concrete, brick and mortar.
- Resistant to most organic solvents, mild acids and alkalis.
- Reacts even with seawater and mineral water, suiting coastal and contaminated groundwater conditions.
- Forms a highly resilient flexible seal that allows continued movement in the crack, fracture or joint.
- Single-component — no mixing ratio and no pot life to race.

Uses

- Crack injection and concrete repair — sealing active leaks and filling voids in concrete structures.
- Basements, tunnels and underground car parks.
- Retaining walls and dams — sealing expansion joints, construction joints and cracks.
- Sewage and water treatment plants — sewer pipes, water tanks and treatment structures.
- Bridges and infrastructure — bridge decks, culverts and roadways.
- Mining and tunnelling — rock fissures, underground shafts and tunnel linings.
- Precast concrete and pipe sealing — joints in precast elements, pipe penetrations and manholes.

Compliance Status

Performance values for ACTFLEX INJECTSWELL are typical FORSPEC R&D values, asterisked, with the test method stated against each value in the Technical Data table.

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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	Single-component hydrophilic polyurethane injection grout with polyether polyols	—
Colour	Light brown	—
Packaging	10 kg	—
Solids content	90%	FORSPEC R&D to ISO 3251 *
Density at 25°C	1.1 g/cm³	FORSPEC R&D to ASTM D1475 *
Viscosity at 25°C	450–600 mPa·s	FORSPEC R&D to ASTM D2196 *
Bond strength	> 0.28 MPa	FORSPEC R&D to EN 12618-2 *
Elongation — thick sections	> 34%	FORSPEC R&D to ASTM D3574 *
Elongation — thin sections	> 400%	FORSPEC R&D to ASTM D3574 *
Cream time (at 25°C)	48 seconds	FORSPEC R&D to ASTM D7487 *
Rise time (at 25°C)	302–343 seconds, water ratio dependent	FORSPEC R&D to ASTM D7487 *
Free rise ratio	4.3 to 6.4 times, water ratio dependent	FORSPEC R&D to ASTM D7487 *
Chemical resistance	Most organic solvents, mild acids and alkalis	*
Application temperature	Above +10°C	—
Shelf life	12 months, unopened, stored dry and protected from moisture *	*

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

Coverage and Yield

WATER : RESIN RATIO (AT 25°C)	CREAM TIME	RISE TIME	FREE RISE RATIO
1:1	48 seconds	343 seconds	4.3×
1:2	48 seconds	338 seconds	5.3×
1:3	48 seconds	324 seconds	5.8×
1:4	48 seconds	302 seconds	6.4×

Consumption is governed by void volume and the free rise ratio achieved. Estimate resin demand as the measured void volume divided by the free rise ratio for the prevailing water ratio, plus an allowance for travel beyond the void and for pump and line priming. Establish actual consumption on the first section injected. * Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

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Limitations

- Not for use in contact with potable water.
- Not a waterproofing membrane — ACTFLEX INJECTSWELL seals a crack or void from within; it does not waterproof a surface.
- Requires sufficient water in the substrate to gel — in areas of very little water content and little counter pressure the product will expand to a foam rather than form a gel seal. Introduce water before injection where necessary.
- The cured hydrophilic seal depends on retained moisture and will shrink under sustained wet and dry cycling — do not specify where the crack will dry out permanently.
- Do not apply below 10°C.
- Do not dilute or mix with any other product.
- Reseal the container immediately after use — the product reacts with atmospheric moisture.
- Injection pressure must be controlled to avoid hydraulic fracture of the structure — pressure limits are the design responsibility of the project engineer.
- Not a structural repair — where structural continuity must be restored, specify the FORSPEC epoxy crack repair range.
- Confined and below-ground injection work requires the site confined-space entry procedure.

Surface Preparation

- Confirm the crack, fissure or joint location, extent and water regime, and record the leak rate before work begins.
- Clean the crack and surrounding area of loose material, dirt and contaminants.
- Where surface leakage is heavy, stop the flow first with ACTFLEX HYDROPLUG and complete the surface detail with ACTFLEX FLEXIPLUG before injecting.
- Drill and set injection packers to the pattern and spacing determined by the crack width, wall thickness and the project design.
- Flush the crack with clean water to establish the flow path, confirm packer communication and introduce water where the substrate is dry.
- Confirm sufficient water is present in the substrate for the product to gel rather than foam.

Application

- Apply with single-component injection equipment.
- Reseal the container immediately after decanting — the product is moisture reactive.
- Begin injection at the lowest packer and work upwards, injecting until resin emerges from the packer above.
- Control injection pressure within the limit set by the project engineer — excessive pressure will hydraulically fracture the structure.
- Where the substrate is dry or counter pressure is low, introduce water before injection so that the product gels rather than expanding to a foam.
- Move to the next packer and repeat, working systematically along and up the crack.
- Re-inject any packer that continues to accept resin after the initial reaction has completed.
- Flush the pump and lines with urethane thinner immediately after use.
- Once the reaction is complete, remove the packers and reinstate the holes with a FORSPEC repair mortar.
- Trim and dress cured resin flush with the surface.
- Inspect the treated crack for continued leakage and re-treat where required.

Drying, Curing and Testing Times

All times below are measured at 25°C and 50% RH. Low temperature slows the reaction and extends every stage — confirm the reaction is complete before re-injecting, trimming or removing packers.

STAGE (AT 25°C, 50% RH)	TIME
Cream time — reaction starts	48 seconds
Rise time — expansion complete	302–343 seconds, water ratio dependent
Re-injection window at the same packer	After the previous injection has fully reacted *
Trim and dress cured resin	Once the resin is firm and no longer expanding *
Full reaction and stable seal	24 hours *

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Drying, Curing and Testing Times (continued)

STAGE (AT 25°C, 50% RH)	TIME
Packer removal and hole reinstatement	After full reaction — reinstate with a FORSPEC repair mortar *
Leak re-inspection	24 hours after full reaction *

* 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, flushing the pump and lines with urethane thinner where the Safety Data Sheet permits; for storage, follow with pump cleaning oil. 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 all ACTFLEX INJECTSWELL used, crack locations, widths and lengths, recorded leak rate before and after treatment, packer pattern and spacing, water pre-flushing and any water introduced, water-to-resin ratio used, injection pressures and volumes per packer, re-injection where undertaken, packer removal and hole reinstatement, and post-treatment leak inspection results, as part of the project quality assurance records.

Storage

Store at 5–30°C in original unopened containers, in a cool, dry place away from direct sunlight and all sources of moisture — the resin reacts with water, including atmospheric humidity. Reseal partly used containers immediately. Shelf life: 12 months from the date of manufacture, unopened, when stored as specified.*

Safety Precautions and First Aid

Refer to the current Safety Data Sheet before use. ACTFLEX INJECTSWELL is a moisture-reactive polyurethane: it may cause skin and eye irritation and may cause respiratory sensitisation in susceptible persons. Use in well-ventilated areas — below-ground and confined injection work requires the site confined-space entry procedure, atmospheric testing, mechanical ventilation and a standby observer. Wear protective gloves, protective clothing, eye and face protection, and respiratory protection where ventilation is inadequate or where the SDS and workplace risk assessment require it. Injection equipment operates at high pressure — never point a nozzle or line at any person and depressurise before breaking any connection. Do not eat, drink or smoke when handling; wash hands before breaks and after work.

First aid — Skin: wash immediately with soap and water; avoid prolonged exposure and remove contaminated clothing. Eyes: rinse thoroughly with clean water for at least 15 minutes and seek medical attention. Inhaled: move 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. High-pressure injection injury: seek immediate emergency medical attention even where the wound appears minor. 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.

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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 INJECTSWELL 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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