ACTFLEX HYDROPLUG.



Technical Data Sheet | **Rapid-Setting Water-Stop Plugging Cement** | **Issue date: 12 November 2026**

Description

ACTFLEX HYDROPLUG is a rapid-setting, non-shrink cementitious plugging compound engineered to instantly stop active water leaks under pressure — the water-stop of the FORSPEC range, and the first product called in every FORSPEC negative-side and detailing procedure where water is flowing. Mixed to a putty and pressed by hand into prepared cracks, holes, junctions and penetrations in concrete and masonry, it sets within minutes even against flowing water, curing to high mechanical strength comparable to concrete without corroding steel reinforcement. Once the flow is stopped, the detail is completed with ACTFLEX FLEXIPLUG and over-coated with ACTFLEX 988 CWP or the specified FORSPEC membrane for permanent waterproofing. Supplied in 5 kg and 20 kg pails, mixed only with clean water.

Advantages

- Instantly stops active water leaks and flowing water — even under high pressure.
- Rapid setting — hand-set within 2–4 minutes; initial solidification within 5 minutes, final within 10.
- Non-shrink formulation for a durable, permanent plug.
- Cures to high mechanical strength, comparable to concrete.
- Non-corrosive — does not affect steel reinforcement.
- Non-staining; can be sanded or ground to match existing structural contours.
- The system water-stop — the first step in the FORSPEC 988/989 negative-side and FLEXIPLUG detailing procedures.
- Over-coated by ACTFLEX 988 CWP and the FORSPEC membrane range for permanent waterproofing.
- Doubles as a rapid anchor for bolts, pipes, conduits and sanitary fittings.
- Mixes with clean water only — no second component.

Uses

- Stopping active leaks in non-potable water tanks and retention structures — not for potable (drinking) water.
- Basements, underground car parks, lift shafts and lift pits.
- Concrete pipes, tunnels, power stations and sewer systems.
- Joint sealing between concrete segments — pipes, culverts, tunnels and mines.
- Wall/floor junction water-stopping in water-retaining structures, within the ACTFLEX 988 CWP system.
- Sealing around penetrations, pipe entries and fittings ahead of ACTFLEX FLEXIPLUG detailing.
- Rapid anchoring of bolts, pipes, conduits and sanitary fittings.

Compliance Status

No Australian Standard prescribes performance requirements for rapid-setting plugging cements; system compliance is carried by the FORSPEC membranes applied over the completed detail, per their TDS. The physical property set below comprises typical FORSPEC R&D values, each stated against its test method. Hazard classification: HAZARDOUS CHEMICAL (non-dangerous goods), signal word DANGER, per SDS Chemwatch 7949-70. Not for potable water — do not use in drinking-water tanks or in potable water storage or supply structures.

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

Technical Data

PROPERTY	VALUE	BASIS
Product type	Single-component, rapid-setting, non-shrink cementitious plugging compound	—
Appearance	Uniform grey powder — no impurities, no agglomerates	—
Water addition	150 mL per 1 kg of powder — mixed to a putty consistency	—
Batch size	Approx. 0.5 kg per batch — mixed by hand, spatula only	—
Hand-set	2–4 minutes after placement	FORSPEC R&D to ASTM C266 *
Initial solidification	Within 5 minutes	FORSPEC R&D to EN 196-3 / ASTM C266 *
Final solidification	Within 10 minutes	FORSPEC R&D to EN 196-3 / ASTM C266 *
Compressive strength	≥4.5 MPa at 1 hour; ≥15.0 MPa at 3 days	FORSPEC R&D to EN 12190 / ASTM C109 *
Flexural strength	≥1.5 MPa at 1 hour; ≥4.0 MPa at 3 days	FORSPEC R&D to EN 196-1 / ASTM C348 *
Osmotic pressure resistance	≥1.5 MPa at 7 days — equivalent to approx. 150 m head of water	FORSPEC R&D to GB 23440 *
Bond strength	≥0.6 MPa at 7 days	FORSPEC R&D to GB 23440 / EN 1542 *
Heat resistance	100°C for 5 hours — no cracking, peeling or spalling	FORSPEC R&D to GB 23440 *
Freeze-thaw resistance	20 cycles — no cracking, peeling or spalling	FORSPEC R&D to GB 23440 *
Placed density	Approx. 2.2 kg/L (yield approx. 0.50 L per kg of powder)	* worked below
Application temperature	+5°C to +35°C (ambient and substrate)	—
Packaging	5 kg and 20 kg pails	—
Shelf life	12 months, unopened, sealed pails stored dry	*

* Typical FORSPEC R&D values and worked typicals on standard production material, stated against the test method shown. Values are not to be relied upon for engineering design without written confirmation from FORSPEC Technical Services.

Coverage and Yield

Yield derives from the composition and water addition: powder particle density approx. 2.9 kg/L (portland cement, calcium carbonate and amorphous silica per the SDS), plus 150 mL water per kg, less approximately 7% hand-pressed entrapped air → placed density approx. 2.2 kg/L — a yield of approx. 0.50 L per kg of powder, matching the established range for rapid plugging cements. Powder consumption ≈ 0.002 × width (mm) × depth (mm) kg per linear metre:*

DETAIL	CONSUMPTION	PER 5 KG PAIL	PER 20 KG PAIL
20 × 20 mm chase (minimum preparation)	Approx. 0.8 kg/m	Approx. 6 m	Approx. 25 m
40 × 40 mm chase (high-volume leaks)	Approx. 3.2 kg/m	Approx. 1.5 m	Approx. 6 m
Wall/floor junction — 45° cove approx. 40 mm face over 20 mm chase	Approx. 1.6 kg/m	Approx. 3 m	Approx. 12.5 m
Spot plug — 20 mm hole × 40 mm deep	Approx. 25 g each	Approx. 200 plugs	Approx. 800 plugs

* Worked typical values — actual consumption varies with cavity irregularity, compaction and wastage; allow accordingly.

contact.

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

Limitations

- NOT for expansion or movement joints — moving details are the role of ACTFLEX FLEXIPLUG, per its TDS.
- Cementitious substrates only — never on non-cementitious surfaces.
- Never apply below +5°C or above +35°C, and never over frozen or frosted substrates.
- The 150 mL per kg water ratio is critical — deviation affects setting time, strength and bond.
- Requires a clean, sound, damp substrate — unsuitable over oil, grease or bond-breaking contamination.
- No heavy loads or restored water pressure before the plug has fully cured.
- Not for prolonged direct UV exposure — over-coat with the specified FORSPEC membrane system.
- A rapid water-stop and repair compound — not a stand-alone waterproofing membrane: permanent waterproofing is completed with ACTFLEX 988 CWP or the specified FORSPEC membrane.

Surface Preparation

- Remove all contaminants — loose material, coatings, curing agents, oil, grease, moss and algae.
- Grind out cracks, joints and holes to a minimum depth AND width of 20 mm; increase to 40 mm for high-volume leaks.
- Square-cut or dovetail the opening for mechanical key — NEVER a V profile.
- Flush with clean water to remove dust and debris, and keep the area damp until application.

Mixing

- Use clean water at approximately 20°C for optimal strength — warm water accelerates setting in cold conditions; cold water slows it.
- Mix manually with a spatula — never electric mixers.
- Mix small batches of approximately 0.5 kg at the ratio of 150 mL water per 1 kg of powder.
- Mix to a stiff, putty-like consistency.
- Hold the mixed putty in a gloved hand until a slight warmth is felt — the signal of initial setting and the moment to place.

Application

Press the warming putty firmly into the prepared opening against the water flow and HOLD IN PLACE for 30 seconds to 1 minute until it begins to set. Setting completes within 2–4 minutes. For larger leaking areas, work from the edges inward to progressively confine and control the flow. Once set, mist with clean water or hold a damp sponge to the repair for 15 minutes to aid curing. The cured plug can be sanded or ground to match the surrounding structural contours. For wall/floor junctions in water-retaining structures, cut and fill to a minimum 20 mm width and finish as a 45° cove approximately 40 mm wide.

- **Completing the detail**
  Once the water flow has stopped and the plug has set, complete the junction, joint or penetration detail with ACTFLEX FLEXIPLUG per its TDS, and apply ACTFLEX 988 CWP — or the specified FORSPEC membrane — over the completed detail for permanent protection against dampness and seepage, per the membrane TDS and the approved system.
- **Rapid anchoring**
  For anchoring bolts, pipes, conduits and sanitary fittings: prepare and dampen the cavity as above, place the putty, position and align the fixture immediately, and hold static until set. No load before the strength appropriate to the fixing has developed — ≥4.5 MPa within the hour on the manufacturer index.

Drying, Curing and Testing Times

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

STAGE (AT 25°C, 50% RH)	TIME
Mixing	Manual spatula only, batches of approx. 0.5 kg at 150 mL water per kg
Working window after gauging	Use immediately — the product is moisture-reactive *

contact.

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

Drying, Curing and Testing Times (continued)

STAGE (AT 25°C, 50% RH)	TIME
Hold in place against water flow	30 seconds to 1 minute
Hand-set	2–4 minutes after placement *
Initial solidification	Within 5 minutes *
Final solidification	Within 10 minutes *
Moist cure after set	15 minutes *
ACTFLEX FLEXIPLUG detailing over the plug	Once the plug is hard and the flow has stopped *
FORSPEC membrane overcoating	After the completed detail has set — refer to the ACTFLEX FLEXIPLUG TDS *
Strength development	≥4.5 MPa compressive at 1 hour; ≥15.0 MPa at 3 days *

Gauging water is used at approximately 20°C — colder water extends the set and warmer water shortens it. * Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

Clean Up

Clean tools and equipment immediately with clean water before the material sets — set material can only be removed mechanically. Wash hands and skin with soap and water. Do not discharge material or wash water into drains, soil or waterways.

Container and Waste Disposal

Allow residues to fully harden before disposal in accordance with State and local requirements; route unused powder to an authorised hazardous or special waste collection point per the SDS, Section 13. Do not reuse contaminated packaging.

Quality Records

Record the batch numbers of all pails used, the leak locations and chase dimensions prepared, water ratio compliance, set confirmation and moist-curing completed, the FLEXIPLUG detailing and membrane over-coating that followed, and ambient conditions, as part of the project quality assurance records.

Storage

Store in original, sealed pails in a cool, dry, covered environment off the ground, protected from moisture and humidity — the product is moisture-reactive and damaged or unsealed pails must not be used. Shelf life: 12 months from the date of manufacture when stored as specified.

Safety Precautions and First Aid

ACTFLEX HYDROPLUG is classified as a HAZARDOUS CHEMICAL (non-dangerous goods), signal word DANGER, under its current Safety Data Sheet (Chemwatch 7949-70): causes skin irritation; may cause an allergic skin reaction; CAUSES SERIOUS EYE DAMAGE; may cause respiratory irritation; suspected of causing genetic defects; may cause damage to organs through prolonged or repeated exposure. The powder contains portland cement (over 60%) and becomes strongly alkaline when wet — and this product is worked BY HAND: impermeable gloves are mandatory at every step, with no bare-skin contact with the putty at any time. Avoid all dust generation and inhalation; use in ventilated areas; wear protective gloves, protective clothing, and eye and face protection, with respiratory protection where dust cannot be controlled. Obtain special instructions before use; contaminated work clothing must not leave the workplace; wash all exposed areas thoroughly after handling; do not eat, drink or smoke when using.

First aid — Eyes: immediately hold eyelids apart and flush continuously with running water for at least 15 minutes, and transport to hospital or doctor without delay. Skin: wash with plenty of soap and water; remove contaminated clothing and wash before reuse; seek medical advice if irritation or rash occurs. Inhaled: remove to fresh air and keep comfortable. Swallowed: do NOT induce vomiting; rinse

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

Safety Precautions and First Aid (continued)

mouth and immediately call the POISONS INFORMATION CENTRE or a doctor. 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 HYDROPLUG 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.

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.

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

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

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.



contact.

FORSPEC PROTECTIVE COATINGS

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