ACTFLEX EPOXY GROUT.



Technical Data Sheet | **High-Strength, Flowable Structural Epoxy Grout, Primer, Binder and Heavy-Duty Coating** | **Issue date: 12 August 2026**

Description

ACTFLEX EPOXY GROUT is a two-component, solvent-free, high-strength, low-viscosity structural epoxy grout engineered for concrete repair — formed and poured into large voids, deep defects and damaged sections in single pours up to 100 mm. Its flowable, low-viscosity body wets and penetrates open-textured concrete, forming a rigid, high-strength epoxy matrix for structural patching, void filling and load-transfer grouting beneath baseplates, machine bases and plinths. Within the FORSPEC PREFLEX basement tanking system it grouts pile caps, formed repairs and prepared substrate transitions, and it serves as the low-viscosity primer for ACTFLEX HBR and as the resin binder for approved aggregate-filled repair and heavy-duty floor systems. Supplied as a pre-proportioned 30 kg kit, it bonds tenaciously to concrete, masonry, stone and prepared steel.

Advantages

- High-strength concrete repair — form up and pour to reinstate large voids, deep defects and damaged structural sections.
- Deep single pours up to 100 mm with the approved pour plan — staged placement beyond, with exotherm control.
- Low viscosity (250–450 mPa·s) — wets, penetrates and flows into open-textured substrates and accessible static voids.
- High compressive strength — 80 MPa at 7 days, engineered for rigid repair and load-transfer applications.
- System role in FORSPEC PREFLEX basement tanking — pile caps, formed repairs and substrate transitions per the current system detail.
- Primer and bonding coat for ACTFLEX HBR, ACTFLEX CRYSTAL BOND and compatible FORSPEC mortars, coatings and overlays.
- Resin binder for approved aggregate-filled repair, high-friction and heavy-duty floor systems.
- Moisture tolerant on correctly prepared concrete within the 4% moisture limit — no standing water, condensation or active flow.
- Corrosion and impact resistant; chemically resistant epoxy matrix for approved exposures.
- Pre-proportioned 30 kg kits — consistent, measured results on site; solvent-free.

Uses

- Formed filling of large, static voids and deep defects in concrete — form up with sealed formwork and pour, in single lifts up to 100 mm.
- Structural and heavy-duty patch repairs to prepared concrete, including formed edge repairs and high-traffic repair zones, subject to repair design.
- Flowable grouting beneath baseplates, bearing plates, machine bases, plinths and confined load-transfer details.
- FORSPEC PREFLEX basement and below-ground tanking systems — pile caps, pile-capping details, formed repairs, localised void filling and substrate transitions per the current FORSPEC system detail.
- Low-viscosity epoxy primer and bonding coat for ACTFLEX HBR, ACTFLEX CRYSTAL BOND and compatible FORSPEC repair mortars, coatings and overlays.
- Resin binder for approved epoxy mortar, aggregate-filled repair and heavy-duty patching systems — aggregate type, grading and resin ratio per the FORSPEC system instruction.
- Hard-wearing rigid epoxy floor coating or binder layer for approved industrial and high-traffic floor systems.
- Gravity feeding or low-pressure filling of accessible static cracks and voids where the opening permits free flow — not represented as a dedicated hairline crack-injection resin.

Compliance Status

No Australian Standard prescribes performance classes for structural epoxy grouts of this type; the recognised industry test basis is the ASTM chemically-resistant grout series (ASTM C579 compressive, C580 flexural, C307 tensile), against which formal testing can be commissioned. Values published here are typical Forspec R&D characteristics on the bases cited in the Technical Data.

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Compliance Status (continued)

System compliance within FORSPEC PREFLEX tanking and repair systems is carried by the applicable system specification. Hazard classification: HAZARDOUS CHEMICAL, DANGEROUS GOODS (environmentally hazardous), Poisons Schedule S5 — both components — per the current SDS (Part A Chemwatch 9041-09; Part B Chemwatch 9041-08).

Technical Data

PROPERTY	VALUE	BASIS
Form	Two-component, solvent-free epoxy: Part A amber resin; Part B clear hardener; mixed translucent amber	—
Packaging	30 kg pre-proportioned kit — Part A 20 kg; Part B 10 kg	—
Mix ratio	2:1 by volume; 2:1 by packaged weight (20 kg : 10 kg)	—
Mixed density	Approx. 1.05 kg/L at 25°C	*
Theoretical yield	Approx. 28.57 L per 30 kg kit (30 ÷ 1.05)	—
Mixed viscosity	250–450 mPa·s at 25°C (Brookfield-type)	*
Compressive strength (at 7 days, 25°C)	80 MPa	ASTM C579 basis *
Flexural strength (at 7 days, 25°C)	73 MPa — neat resin casting	ASTM D790 *
Tensile strength (at 7 days, 25°C)	35 MPa — neat resin casting	ASTM D638 *
Bond strength to prepared concrete	Greater than 2.5 MPa — concrete substrate failure	*
Pot life (at 25°C, 50% RH)	Approx. 40 minutes — reduces with temperature and mixed mass	*
Initial cure (at 25°C, 50% RH)	10–12 hours	*
Full cure (at 25°C, 50% RH)	7 days	*
Maximum single-pour depth	100 mm — deeper placements staged per the approved pour plan	—
Application temperature	10–35°C (ambient and substrate); component conditioning 18–29°C	—
Maximum substrate moisture	4% — no standing water, condensation or active flow	—
Shelf life	24 months, unopened, stored at 5–35°C	—

* Typical characteristic values determined by Forspec R&D on standard production material; strength values on the test bases stated, at the ages and conditions shown. Typical values are general guidance, not specification limits — results vary with batch, specimen geometry, substrate, temperature, mixed mass and curing conditions. Values are not to be relied upon for engineering design without written confirmation from FORSPEC Technical Services.

Consumption

Formed grouting and void filling: 1.05 kg of mixed product per litre of void volume — one 30 kg kit fills approximately 28.5 L of void. Neat coating and patching: approximately 3.15 kg/m² per 3 mm of thickness. Priming: approximately 0.2–0.3 L/m² per coat (0.21–0.32 kg/m²), porosity-dependent.

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Coverage and Yield

APPLICATION	COVERAGE PER 30 KG KIT
Formed grout / void filling	Approx. 28.5 L of void volume
Neat coating or patch at 3 mm	Approx. 9.5 m^2
Primer at 0.2–0.3 L/m^2	Approx. 95–143 m^2 per coat (theoretical, before losses)

Check: 28.57 L ÷ 3 mm = 9.52 m^2; 28.57 ÷ 0.2–0.3 L/m^2 = 95–143 m^2 — the yield, consumption and coverage figures reconcile. Coverage reduces with substrate profile, porosity and wastage.

Limitations

- Maximum single-pour depth 100 mm — deeper or large-volume placements only by an approved staged-pour or aggregate-extension plan. Large or confined mixed masses generate hazardous exothermic heat, accelerated cure, cracking, smoke or thermal damage.
- Maximum substrate moisture content 4% — never apply over rising moisture, hydrostatic pressure, standing water, condensation or active leakage.
- Concrete must be a minimum of 28 days old with a compressive strength of at least 25 MPa.
- Rigid product — never use across movement joints, active cracks, flexible substrates or interfaces expected to move independently. Detail movement joints through the complete repair or coating system.
- Apply only when ambient and substrate temperatures are 10–35°C and not forecast to fall below 5°C within 24 hours; condition components separately at 18–29°C and never locally heat containers.
- Do not dilute or extend pot life with solvents or thinners — the system is supplied ready for use.
- Do not mix partial kits unless expressly permitted in writing by FORSPEC and measured with calibrated equipment to both the 2:1 volume and 2:1 weight ratios.
- Maintain continuous grout flow beneath baseplates and foundations — no cold joints or interruptions between pours.
- Not represented as a dedicated hairline crack-injection resin — gravity or low-pressure filling of accessible static openings only.
- Chemical and marine exposure must be checked against the current FORSPEC chemical-resistance guidance before exposure to fuels, oils, acids, alkalis or process chemicals.
- Protect fresh placements from vibration, traffic, water and contamination for a minimum of 24 hours; no structural loading, immersion or chemical exposure before full cure at 7 days.
- Slight ambering or surface bloom may occur under high humidity — this does not affect mechanical performance.
- Always conduct a trial pour to confirm compatibility and flow under site conditions.

Surface Preparation

- Concrete must be sound, clean and free of oil, laitance, curing compounds and dust — mechanically prepare by diamond grinding, captive shot-blasting or scarifying to a clean, open profile, and vacuum immediately before priming or placement.
- Concrete moisture content must not exceed 4%; no standing water, condensation, rising moisture or active leakage.
- Concrete minimum 28 days old, minimum 25 MPa compressive strength.
- Steel: abrasive-blast to ISO 8501-1 Sa 2½ bright metal where specified; degrease, remove dust and salt, and coat before flash rusting. Metal inserts and plates cleaned and degreased immediately before placement.
- Formwork for poured repairs: rigid, braced, sealed and leak-proof, resisting full grout pressure, with a pour point, vents at high locations, headbox and clearance for uninterrupted flow. Apply a compatible release agent without contaminating bond surfaces.

Mixing

- Condition both components to 18–29°C before mixing (21–25°C preferred). Never locally heat containers.
- Use complete pre-proportioned kits — partial batching only with written FORSPEC permission and calibrated measurement of both the 2:1 volume and weight ratios.
- Add the entire contents of Part B (hardener) into Part A (resin).
- Mix with a low-speed mechanical mixer (300–400 rpm, helical or paddle impeller) for 2–3 minutes, scraping the sides and base.
- Double-pot: transfer to a clean container and remix 1 minute to a streak-free, homogeneous blend. Do not whip or aerate.

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Mixing (continued)

- Use immediately — complete placement within approximately 40 minutes at 25°C. Working time falls as temperature and mixed mass rise. Never leave the full mixed kit confined in the mixing vessel; discard material that thickens or heats.

Application

- **Formed structural grouting and concrete repair**
  Form up the repair with rigid, sealed, leak-proof formwork and pour the mixed grout continuously from one side to drive unidirectional flow and exclude air, maintaining a hydrostatic head until the void, defect or baseplate detail is completely filled. Single pours up to 100 mm; for deeper placements, use the approved staged-pour sequence — successive lifts placed wet-on-tacky within the recoat condition, or after cure with mechanical abrasion and cleaning, per the approved pour plan. Checks: continuous flow with no cold joints; vents run full; formwork tight throughout.
- **Priming and bonding coat**
  Apply by brush, roller or squeegee at approximately 0.2–0.3 L/m² to fully wet the prepared surface without ponding. On highly porous concrete, apply a second coat once the first has absorbed and reached a tacky state. Place ACTFLEX HBR, the compatible mortar, coating or overlay while the primer is within its wet/tacky recoat condition — typically 30–60 minutes at 25°C. If fully cured, mechanically abrade and clean before recoating.
- **Patching and floor systems**
  Patching: apply the bond coat, place neat or approved aggregate-extended epoxy while the primer is in its specified condition, compact firmly against all faces, exclude air, hold square edges and finish within the working time. Floor systems: apply only to mechanically prepared concrete meeting the moisture and dew-point limits, then the specified primer, body coat and aggregate broadcast per the approved floor system; remove loose aggregate, seal or topcoat as specified, and observe the full traffic and chemical-service cure schedule.
- **Curing**
  Initial cure is approximately 10–12 hours at 25°C, 50% RH — protect the placement from movement, vibration, impact, water, contamination and temperature extremes throughout. Do not remove load-bearing formwork, impose loading, traffic, coat, immerse or chemically expose before the applicable return-to-service period; full mechanical and chemical properties develop at 7 days at 25°C. Cure slows in cold conditions and accelerates in heat.

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	2–3 minutes at 300–400 rpm, then double-pot and remix 1 minute
Pot life	Approx. 40 minutes — reduces with temperature and mixed mass *
Placement window	Complete placement within the pot life *
Initial cure	10–12 hours *
Formwork removal	After initial cure *
Protection from vibration, traffic, water and contamination	Minimum 24 hours
Full cure — before structural loading, immersion or chemical exposure	7 days *

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Drying, Curing and Testing Times (continued)

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

Clean Up

Clean uncured material from tools and equipment with FORSPEC EPOXY CLEANER; use xylene only where expressly permitted by both component SDS and the site risk assessment. Replace contaminated solvent regularly. Cured material can only be removed mechanically. Wear nitrile gloves, eye protection and solvent-resistant clothing for mixing and clean-up. Never allow uncured epoxy, solvents or cleaning waste to enter drains, soil or waterways.

Container and Waste Disposal

Dispose of contents and containers to an authorised hazardous or special waste collection point in accordance with local regulation — both components are classified environmentally hazardous dangerous goods. Allow mixed residues to fully cure before disposal as construction waste where permitted. Refer to Section 13 of both component SDS for detailed requirements.

Quality Records

Record the batch numbers of both Part A and Part B for every kit used, mixing times and conditions, pour plans and staged-lift records with intervals and preparation, substrate moisture readings, primer and recoat timing, application dates and temperatures, and trial pour results, as part of the project quality assurance records.

Storage

Store in original, unopened containers in a dry, ventilated area at 5–35°C, protected from sunlight and frost, and stored and transported as classified dangerous goods (environmentally hazardous). Shelf life: 24 months from the date of manufacture when stored as specified.

Safety Precautions and First Aid

Both components are classified HAZARDOUS CHEMICALS and DANGEROUS GOODS (environmentally hazardous), Poisons Schedule S5, under their current Safety Data Sheets — Part A (resin): Chemwatch 9041-09 — causes skin irritation and serious eye irritation, may cause an allergic skin reaction, may form explosive peroxides, toxic to aquatic life with long-lasting effects. Part B (amine hardener): Chemwatch 9041-08 — harmful if swallowed or inhaled, causes skin irritation and serious eye damage, may cause an allergic skin reaction, and may cause allergy or asthma symptoms or breathing difficulties if inhaled. Control epoxy sensitisation: avoid all skin and eye contact, avoid breathing mists and vapours, use only in well-ventilated areas with respiratory protection where ventilation is inadequate, and wear chemical-resistant gloves, protective clothing and eye and face protection. Persons with a history of epoxy or amine sensitisation must not be exposed. Contaminated work clothing must not leave the workplace. Do not eat, drink or smoke when using. Control dust when grinding, cutting or sanding cured material. Prevent all release to the environment and collect spillage.

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Safety Precautions and First Aid (continued)

First aid — Eyes: hold eyelids apart and flush continuously with running water for at least 15 minutes; seek immediate medical attention. Skin: remove contaminated clothing and footwear; flush skin and hair with running water and soap; seek medical attention if irritation occurs. Inhaled: remove to fresh air; if experiencing respiratory symptoms, call a doctor immediately. Swallowed (Part B is harmful if swallowed): contact a POISONS INFORMATION CENTRE or doctor at once — urgent hospital treatment is likely to be needed; rinse mouth; do not induce vomiting. POISONS INFORMATION CENTRE: 13 11 26 (Australia-wide, 24 hours). In an emergency, dial 000. KEEP OUT OF REACH OF CHILDREN. Read both Safety Data Sheets 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 EPOXY GROUT 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 12/08/2026 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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