

RESIN AND GROUT INJECTION

Crack injection · anchor resins · structural grouting

ACTIVITY RAMS — ADAPT TO SITE BEFORE USE

KD-RAMS-CR-003 Rev A0

Statutory basis: HSWA 1974 s.2(2)(a) and MHSWR 1999 regs 3 and 5; COSHH 2002 with EH40/2005 (4th edition, 2020) — concrete cutting is a high silica-exposure activity and dry cutting is not a method under this document; CAR 2012, because existing structures and their coatings are presumed to contain asbestos until the register says otherwise; PUWER 1998 and LOLER 1998 reg 8 for the saws and for rigging cut sections; Electricity at Work Regulations 1989 for services within the structure; Work at Height Regulations 2005; Manual Handling Operations Regulations 1992; CDM 2015 regs 13 and 15. Cutting an opening removes structure: the propping and the sequence are temporary works under BS 5975-1:2024, designed before the first cut and never decided at the workplace.

1 DOCUMENT AND PROJECT IDENTIFICATION

RAMS REFERENCE	PROJECT / SITE REF	SITE NAME AND ADDRESS	DATE PREPARED	NEXT REVIEW DATE
CLIENT / PRINCIPAL CONTRACTOR	PLANNED START	DURATION	OPERATIVES	SUPERVISING THE WORK

2 SCOPE OF WORKS

Injection of resins and grouts: crack injection for structural and water-resisting repair, resin anchor installation, and grouting of base plates and voids. This document does not cover: the injection design and the choice of resin system, and any injection into a structure whose movement has not been assessed. **SITE-SPECIFIC SCOPE, LOCATIONS AND LIMITATIONS**

3 RISK ASSESSMENT — SCORE EACH RISK FOR THIS SITE, THEN ADD WHAT IS MISSING

The hazards and controls below are the starting point for this activity, written by a working main contractor. They are not complete for your site until a competent person has scored each risk, added the site-specific hazards, and struck out anything that does not apply. Rate risks High / Medium / Low before and after controls.

1. Skin contact with cements, plasters, adhesives and sealants

At risk: Operatives

Controls: COSHH assessments for every substance; gloves matched to the substance; barrier and after-work creams available; washing facilities close to the work; report skin problems early — dermatitis is a reportable trend, not a private nuisance.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

2. Removing structure without the propping the design requires

At risk: Everyone in and around the building

Controls: No structural cut starts until the temporary works design is on site, the propping is installed to it, and the temporary works co-ordinator has signed the permit to cut. The cutting sequence in the design is followed exactly — an opening is not enlarged, and a second opening is not started, without going back to the designer. Props are not moved, slackened or removed to suit access at any point.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

3. Work at height from steps, podiums, towers or MEWPs

At risk: Operatives, and anyone below

Controls: Select access by the Work at Height hierarchy — podium or tower before steps; MEWPs by trained (IPAF) operators only. Inspect access equipment before use, establish an exclusion below overhead work, and secure tools and materials against dropping.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

4. Manual handling of boards, materials and components

At risk: Operatives

Controls: Mechanical aids first — trolleys, board lifters, hoists. Two-person lifts for boards and long components; order materials in manageable sizes; plan storage close to the workplace; keep carrying routes clear and lit.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

5. Interface with occupants, other trades and the public

At risk: Occupants, other trades, the public

Controls: Segregate the work area — barriers, signage, sheeting; agree access routes and working hours with the occupier; never obstruct escape routes; deliveries and waste runs outside peak movement times where agreed.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

6. Striking hidden services when drilling, cutting or fixing

At risk: Operatives

Controls: Check drawings and the services register, scan with a CAT before drilling or chasing into existing fabric, respect safe zones, and stop and reassess if an unrecorded service is found.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

RESIN AND GROUT INJECTION

continued

ACTIVITY RAMS — ADAPT TO SITE BEFORE USE

KD-RAMS-CR-003 Rev A0

7. Slips, trips and housekeeping

At risk: Everyone in the work area

Controls: Keep the workface clear, remove waste and offcuts as they are created, route leads at high level or under mats, and maintain task lighting.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

8. Skin and respiratory sensitisation from epoxy and polyurethane resins

At risk: Operatives

Controls: Resin systems are sensitisers: once sensitised, an operative may not be able to work with them again. Gloves are chemical-resistant to the safety data sheet — not general work gloves — and are changed the moment they are contaminated, never wiped and reused. Skin contact is prevented rather than washed off. Mixing and decanting is done in ventilated areas with eye protection, and the safety data sheet for the exact product is on site before the product is opened.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

9. Injection pressure — resin driven into skin or eyes, or the structure jacked apart

At risk: Operatives, the structure

Controls: The injection pressure stated in the design is the maximum and it is monitored, not assumed. Nobody stands in line with a port or a coupling under pressure, and lines are depressurised before any port is changed. A high-pressure injection injury is a surgical emergency even when the entry wound looks trivial: it goes straight to A&E with the safety data sheet, not to a first aid room.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

Site-specific hazards not listed above — every site has at least one:

HAZARD	WHO IS AT RISK	CONTROLS	INITIAL HI...	RESIDUAL...	ACTION OWNER	BY WHEN

4 METHOD — SEQUENCE OF WORK

- 1 Confirm the design, the resin system and the maximum injection pressure; have the safety data sheet on site.
- 2 Survey and mark the crack or void; scan for services before drilling any port.
- 3 Fit ports and seal the surface to the specification; check ventilation before opening any product.
- 4 Mix strictly to the data sheet in a ventilated area with chemical-resistant gloves and eye protection.
- 5 Inject in the designed sequence, monitoring pressure against the stated maximum and watching for movement.
- 6 Depressurise before changing any port; remove ports and make good after the specified cure.
- 7 Dispose of part-mixed material and contaminated PPE as chemical waste — never to general site waste.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE

5 PLANT, EQUIPMENT AND MATERIALS

- Injection pumps with pressure gauge
- Ports, packers and surface seal
- Ventilation where working in enclosed areas
- Spill kit for resin

INSPECTION / THOROUGH EXAMINATION REFS

COSHH ASSESSMENT REFS

6 PPE — THE LAST LINE OF CONTROL, NOT THE FIRST

- Head protection
- Safety footwear
- High visibility
- Gloves — task-rated
- Eye protection
- Hearing protection
- Chemical-resistant gloves to the safety data sheet
- Eye and face protection
- Coveralls

RPE TYPE, FACE-FIT STATUS, AND ANY OTHER PPE REQUIRED

7 PERMITS REQUIRED BEFORE THIS WORK STARTS

A permit authorises this work in that place, on that day. It extends the safe system of work in this document — it does not replace it (HSE HSG250). The site issues the permit; record its number before work starts.

KD-PTW-GP-003 — General Permit to Work

For structural injection and work in occupied buildings.

PERMIT NUMBER

RESIN AND GROUT INJECTION

continued

ACTIVITY RAMS — ADAPT TO SITE BEFORE USE

KD-RAMS-CR-003 Rev A0

KD-PTW-CS-004 — Confined Space Entry Permit

Where injection is carried out in a tank, chamber or void.

PERMIT NUMBER

8 EMERGENCY ARRANGEMENTS — COMPLETE FOR THIS SITE

FIRST AIDER AND LOCATION

NEAREST A&E

ASSEMBLY POINT

HOW THE ALARM IS RAISED

EMERGENCY ACCESS FOR THIS WORK AREA

SPILL / ENVIRONMENTAL RESPONSE

9 BRIEFING RECORD — EVERYONE WORKING UNDER THIS RAMS SIGNS BEFORE STARTING

By signing you confirm the contents of this RAMS have been explained to you, you understand the hazards and controls, and you will work to the sequence stated. Tell the supervisor if the work or the site does not match this document — work stops until it does.

NAME	COMPANY	SIGNATURE	DATE

10 PREPARED AND ACCEPTED

Prepared / adapted for this site by — I confirm I have adapted this document to the site, scored the risks, and that it describes how the work will actually be done.

PRINTED NAME	ROLE / COMPETENCE	COMPANY	SIGNATURE	DATE	TIME

Accepted for the site by — principal contractor or site manager review.

PRINTED NAME	ROLE	COMPANY	SIGNATURE	DATE	TIME

Review this RAMS if the work, the site or the law changes, and at least before each new phase of the works. Flatten the completed PDF before filing so the record cannot be silently edited.

R REVISION HISTORY

Every revision of this document, and every review that found nothing to change. The revision on the front of this sheet is the one you are holding — check kubitdocs.com for the current one before use.

Rev	Date	Class	What changed	Authorised by
D0	2026-08-11	first-issue	First issue.	— not yet approved —
A0	2026-08-27	review	Approved for issue by the author. Content unchanged from D0; the draft status strip is removed. No independent third-party review has been carried out.	Author — director, UK principal contractor, SMSTS. Not an independent review.

Class: first-issue · material (the law, a control, a field or the scope changed — past buyers are notified) · editorial (wording or layout only) · review (checked, nothing changed) · withdrawal. Revision prefix D = draft, not approved and not for sale; A = approved for issue by the person named, on the date shown.