KREVO Inject PU-Flex

Two-component flexible polyurethane injection resin | Elastic sealing of concrete cracks and leaking joints

PRODUCT DESCRIPTION

KREVO Inject PU-Flex is a low-viscosity, solvent- and phthalate-free, two-component flexible polyurethane injection system for sealing cracks in concrete and masonry. Mixed resin cures to an elastic, adherent material that tolerates limited differential movement. Two performance configurations are described: Standard Flex and High Flex.

ADVANTAGES

- Low viscosity promotes penetration into fine cracks and injection ports.
- Flexible cured resin accommodates limited differential substrate movement.
- Bonds to sound dry or damp concrete and masonry surfaces.
- Can be used as a final seal after preliminary control of active water flow.
- Intended for specialist injection with electric or pneumatic pumps.

TYPICAL USES

Crack sealing in concrete and masonry • Beams, slabs and columns • Basements and retaining walls • Liquid-retaining structures • Leaking construction joints • Sewage treatment facilities

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Generic type	Two-part low-viscosity flexible polyurethane injection resin
Binder / chemistry	Solvent- and phthalate-free polyurethane base (A) + hardener (B)
Performance configurations	Standard Flex and High Flex (technical alternatives)
Mix ratio by volume	Standard Flex 1:1 | High Flex 2:1 (A:B)
Standard Flex pack	10 L set: Part A 5 L; Part B 5 L
High Flex packs	15 L set: 10 L A + 5 L B; or 7.5 L: 5 L A + 2.5 L B
Use / finish	Elastic sealing of non-structural cracks and construction joints
Shelf life / storage	12 months; unopened containers in dry conditions at about +25 °C

TYPICAL PHYSICAL & MECHANICAL PERFORMANCE | +25 °C

PROPERTY / TEST METHOD	TYPICAL RESULT
Standard Flex tensile strength | 7 d	3.5 ± 0.5 MPa (ASTM D638)
High Flex tensile strength | 7 d	4.0 ± 0.5 MPa (ASTM D638)
Standard Flex elongation at break | 7 d	90 ± 20% (ASTM D638)
High Flex elongation at break | 7 d	170 ± 20% (ASTM D638)
Standard Flex mixed viscosity	240–280 mPa·s (at +25 °C / 50% RH)
High Flex mixed viscosity	50–90 mPa·s (at +25 °C / 50% RH)
Pot life | both configurations	60–80 minutes (at +25 °C / 50% RH)
Reference minimum crack width	0.1 mm (ductile filling technical criterion)
VOC | reference information	≤150 g/L; manufacturer verification required

Application & Injection Data

KREVO Inject PU-Flex | Mixing, packer installation, injection conditions and leak-control systems

APPLICATION PROPERTIES

PARAMETER	GUIDANCE	PARAMETER	GUIDANCE
Use temperature	+5 to +50 °C	Crack width	≥0.1 mm reference
Moisture state	Dry / damp / wet*	Water resistance	2×10^5 Pa reference
Injection pressure	~4 bar starting guide*	Packer drilling	~45° to surface
Pot life at +25 °C	60–80 minutes	Equipment	Covered PU injection pump
Standard Flex ratio	A:B = 1:1 by volume	High Flex ratio	A:B = 2:1 by volume

Low-viscosity flexible PU resin is suited to suitably prepared fine cracks. For dry, damp or wet cracks, assess water conditions before injection; where water is actively flowing, pre-seal with an appropriate water-reactive foam before final flexible-resin injection.

TYPICAL FLEXIBLE CRACK-INJECTION SEQUENCE

STAGE	MATERIAL / METHOD
1 | Survey	Identify crack path, movement, moisture and active water flow.
2 | Drill / pack	Clean crack; install angled packers or surface-mounted injection ports.
3 | Prepare	Seal crack face; flush equipment and check grade-specific A:B ratio.
4 | Inject	Inject sequentially, from the lowest port on vertical cracks.
5 | Finish	Check watertightness, remove ports and repair exposed surface.

CRACK ASSESSMENT & PREPARATION

Map the crack, record its width, dampness, flow and expected movement, and check concrete soundness. Clean deposits, loose material and contamination. Select an appropriate injection method and develop a site-specific injection pressure and packer layout.

PACKERS, SURFACE SEALING & PRESSURE

Where suitable, drill holes at approximately 45° to the surface so they intersect the crack near its mid-depth. Install injection packers; alternatively use securely bonded surface nipples over the crack. Seal the visible crack face to prevent resin escape.

APPLICATION CONDITION	REQUIRED SITE CONTROL
Active flowing water	Use compatible PU foam pre-injection to stop flow before final resin.
Dry / damp concrete	Clean and sound substrate; manage moisture and use covered pump.
Injection control	Set safe pressure for structure; monitor resin uptake and leakage.

Prepare the injection pump with a compatible polyurethane flushing agent and covered reservoir. Reference guidance indicates a pressure of at least 4 bar, but actual pressure must be controlled for concrete condition and engineer-approved limits. On vertical cracks inject progressively upward.

MIXING RATIO & GRADE SELECTION

Standard Flex: A:B = 1:1 by volume, 240–280 mPa·s mixed viscosity, 90 ± 20% elongation. High Flex: A:B = 2:1 by volume, 50–90 mPa·s mixed viscosity, 170 ± 20% elongation. Both show a typical 60–80 minute pot life at +25 °C / 50% RH.

Installation & Product Support

KREVO Inject PU-Flex | Mixing, permanent flexible crack sealing, system limitations and contacts

MIXING PROCEDURE

- Check the selected grade, component labels and correct mix proportion before opening containers.
- Use clean, dry vessels and mixing tools; precondition components to suitable working temperature.
- Add the complete measured hardener (Part B) to base (Part A), using the ratio specified for that grade.
- Stir manually or at no more than 200 rpm until uniform and streak-free; avoid introducing air.

INJECTION & FOLLOW-UP

- Condition pumps and hoses with a suitable polyurethane flushing agent before injecting resin.
- Inject through packers sequentially, working from the bottom upward for vertical cracks.
- Where water flows strongly, stop or reduce leakage with compatible PU foam before flexible resin.
- Remove or trim packers after cure; verify watertightness and restore the surface as specified.

LIMITATIONS & SYSTEM NOTES

- Use only where a flexible, not structural-load-transferring, crack seal is appropriate.
- The reference working-temperature range is +5 °C to +50 °C; verify field conditions and cure.
- Avoid uncontrolled injection pressure, which may damage weak or cracked concrete.
- Keep equipment dry and covered; prevent water entry into the liquid resin system.
- Do not discharge uncured resin, flushing agents or residues into drains or natural waters.

HEALTH, SAFETY & ENVIRONMENT

Industrial use by trained injection crews only. Review the current Safety Data Sheet, provide ventilation and suitable gloves, protective clothing and eye protection. Prevent skin contact. Clean pumps immediately after use; hardened resin generally requires mechanical removal.

QUALITY & PRODUCT INFORMATION

Select the grade to suit required flowability and crack movement. Record the actual batch ratio, pot life, substrate condition, injection volume and pressure. Compliance with EN 1504-5 or water-contact requirements must be established by the KREVO supplier before any certified claim or approval.

KREVO | GLOBAL CONTACTS

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