KREVO Bond EP

Solvent-free epoxy bonding agent | Fresh-to-hardened concrete bonding | Reinforcement protection

PRODUCT DESCRIPTION

KREVO Bond EP is a two-component, solvent-free epoxy bonding agent for bonding freshly placed concrete or repair mortar to sound hardened concrete and prepared steel. The epoxy system may also be used as a protective primer on reinforcing steel and as a water-resistant barrier to chloride ingress in concrete repair works.

ADVANTAGES

- Strong adhesion to prepared concrete and steel substrates.
- Solvent-free epoxy formulation with a long working and overlay time.
- Designed to resist chloride penetration and moisture ingress.
- Suitable for reinforcement corrosion protection and concrete repair priming.
- Brush-applied coating for horizontal and vertical surfaces.

TYPICAL USES

Bonding fresh concrete to existing concrete • Fresh concrete-to-steel bonding • Primer for cementitious concrete repair mortars • Reinforcing steel protection • Anti-chloride barrier in repair and rehabilitation works.

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Material type	Two-component, solvent-free epoxy bonding resin
Composition	Epoxy resin with acid-resistant fillers and wetting agents
Appearance	Two-component base and hardener; uniform mixed coating
Pack sizes	5 Kg complete packs; 2 US-gallon packs where supplied
Theoretical coverage	Approximately 5 m^2/L per coat, substrate-dependent
Volatile organic content (VOC)	< 50 g/L
Storage / shelf life	18 months in dry, shaded conditions below +35 °C
Main applications	Concrete bonding, steel corrosion protection and anti-chloride priming

TECHNICAL PERFORMANCE SPECIFICATION

PROPERTY / TEST METHOD	TYPICAL VALUE
Compressive strength	60 MPa
Tensile strength	20 MPa
Flexural strength	30 MPa
Slant-shear strength	25 MPa
Theoretical coverage	5 m^2 per litre (single coat)
VOC level	< 50 g/L
Application temperature	+5 °C to +35 °C
Pot life at +20 °C / +30 °C	6 hours / 3 hours
Maximum overlay at +20 °C / +30 °C	24 hours / 12 hours

Application & System Data

KREVO Bond EP | Application temperatures, working life, substrate preparation and bonding systems

APPLICATION PROPERTIES

PARAMETER	SPECIFICATION	PARAMETER	SPECIFICATION
Application temperature	+5 to +35 °C	Pot life, +20 °C	6 hours
Pot life, +30 °C	3 hours	Overlay, +20 °C	Within 24 hours
Overlay, +30 °C	Within 12 hours	Theoretical coverage	5 m^2/L per coat
Typical losses	Up to 50% above theoretical	Mixing speed / time	~350 rpm / 3 min
Protective barrier	Two coats	Bond coat	One even coat

The stated working and overlay periods vary with ambient and substrate temperatures. Prepare and apply only quantities that can be used during the pot life. Place fresh concrete or repair mortar within the specified maximum overlay window.

TYPICAL BONDING & PROTECTION SYSTEM

STAGE	MATERIAL / METHOD
1 | Assess substrate	Confirm soundness and remove defects, contamination and loose material.
2 | Prepare concrete	Scabble / scarify / blast to provide a deep exposed-aggregate profile.
3 | Prepare steel	Power brush, Grit-blast to Sa 2½ and at least 100 µm profile; prime promptly.
4 | Mix material	Mix full Part A and Part B pack using slow-speed drill for 3 minutes.
5 | Coat & overlay	Brush evenly and place concrete or mortar inside the stated overlay window.

CONCRETE SURFACE PREPARATION

Concrete must be sound and free of loose or deteriorated material, oil, grease, paint, corrosion products, dust and laitance. Remove defective concrete and produce a deep open-aggregate profile by scabbling, scarifying, abrasive shot blasting or approved high-pressure water blasting. Remove dust and standing water before coating.

STEEL SURFACE PREPARATION

Grit-blast exposed reinforcing steel or steel substrate to at least Sa 2½ cleanliness, with a minimum surface profile of approximately 100 µm. Apply KREVO Bond EP immediately following blasting to prevent flash rusting or re-contamination of the prepared metal.

APPLICATION	SYSTEM REQUIREMENT
Concrete bond coat	One uniform coat; work into substrate, avoiding ponding.
Steel / reinforcement primer	Prepare to Sa 2½; apply immediately after abrasive blasting.
Anti-chloride barrier	Apply two coats and inspect for continuity before further works.

Apply the bonding system to suitably prepared surfaces only. Keep contaminated areas isolated and inspect concrete and steel before priming. Bonding to wet or unsound material must be assessed against the approved method statement.

BONDING & OVERLAY REQUIREMENTS

Mix the full component pack until colour is uniform, then brush into the surface to create a continuous, even film without puddles. Place fresh concrete or repair mortar within the applicable overlay time. Apply two coats where the system is specified as an anti-chloride barrier.

Installation & Product Support

KREVO Bond EP | Mixing, application, cure control, safety and global contacts

MIXING PROCEDURE

- Open the complete matched unit and pre-stir Part A (base) if necessary.
- Add all Part B (hardener) to Part A, maintaining the supplied component ratio.
- Mix mechanically at approximately 300 rpm for 3 minutes until colour is uniform.
- Use full packs only; scrape vessel sides and bottom to achieve a complete blend.

APPLICATION PROCEDURE

- Brush the mixed epoxy thoroughly into the prepared concrete or blasted steel.
- Achieve a continuous coating; do not allow ponding on horizontal surfaces.
- Apply a second coat where an anti-chloride protective barrier is required.
- Place new concrete or repair mortar within the specified maximum overlay time.

LIMITATIONS & QUALITY CONTROL

- Apply between +5 °C and +35 °C; check condensation and site conditions.
- Do not exceed the stated working life or maximum overlay period.
- Avoid excessive coating thickness, standing puddles and contaminated surfaces.
- Check bond performance, surface profile and coating continuity before overlay.
- Clean tools immediately with compatible approved solvent; cured epoxy requires mechanical removal.

HEALTH, SAFETY & ENVIRONMENT

For trained industrial applicators only. Read the current KREVO Safety Data Sheet before use. Wear suitable chemical-resistant gloves, goggles and protective clothing; provide ventilation as required. Avoid skin and eye contact. Keep uncured resin and cleaning solvent out of drains and waterways, and dispose of waste according to local regulations.

QUALITY & PRODUCT INFORMATION

Product suitability depends on correct substrate preparation, complete mixing, ambient conditions and overlay timing. Mechanical properties, emissions limits and referenced standards are performance criteria that must be confirmed by KREVO quality records and product testing for the material supplied.

KREVO | GLOBAL CONTACTS

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