KREVO Bond Cem-EP

Epoxy-cement bonding primer | Reinforcement corrosion protection | Three-component system

PRODUCT DESCRIPTION

KREVO Bond Cem-EP is a three-component, epoxy-modified cementitious coating incorporating selected mineral fillers and a corrosion inhibitor. The system is designed as a bonding primer for concrete repair and as a protective coating for exposed reinforcing steel. It provides an intermediate layer between prepared substrate and compatible repair materials.

ADVANTAGES

- Combines epoxy-modified bonding performance with cementitious application characteristics.
- Designed for strong adhesion to prepared concrete and reinforcement steel.
- Incorporates corrosion inhibitor and limits water and chloride penetration.
- Extended working and overlay periods for compatible repair mortar placement.
- Brush or spray application; suitable for hot and tropical project conditions.

TYPICAL USES

Corrosion protection to exposed reinforcing bars • Bonding coat on existing concrete before repair • Repair of RCC beams, columns and slabs • Structural patching and rehabilitation • Reinforcement treatment in industrial and marine structures.

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Material type	Three-component, epoxy-modified cementitious protective/bonding coating
Composition	Portland cement, epoxy resin, selected aggregates and additives
Kit composition	20 kg set: A = 3 kg, B = 2 kg, C = 15 kg
Appearance / colour	A: white liquid; B: yellowish liquid; C: grey powder; mixed: dark grey
Mixed density	Approximately 2.0 kg/L at +23 °C
Packaging	20 kg complete matched three-component unit
Storage	Dry, cool, unopened original packs at +5 °C to +25 °C
Shelf life	12 months when correctly stored

TECHNICAL PERFORMANCE SPECIFICATION

PROPERTY / TEST METHOD	SPECIFIED PERFORMANCE
Tensile adhesion | BS 1881-207	≥ 1.5 MPa at 28 days, or concrete failure
Shear adhesion | ASTM C881	Pass - bonding primer, fresh-to-hardened concrete
Corrosion protection | EN 15183	Pass - qualification criterion
Reinforcement protection | EN 1504-7	System design / conformity requirement
Rebar coating consumption	2.0 kg/m^2 per 1 mm coat
Rebar protection thickness	Two coats, approximately 1 mm each
Concrete bonding coat consumption	Approximately 1.5-2.0 kg/m^2/mm; depends on substrate
Bonding layer thickness	At least 0.5 mm, fully brushed into surface pores
Mixed system pot life | +20 °C	3 hours

Application & System Data

KREVO Bond Cem-EP | Consumption, overlay timing, substrate preparation and repair sequence

APPLICATION PROPERTIES

PARAMETER	SPECIFICATION	PARAMETER	SPECIFICATION
Ambient temperature	+5 to +35 °C	Substrate temperature	+5 to +35 °C
Pot life at +20 °C	Approximately 3 h	Fresh mixed density	Approximately 2.0 kg/L
Max overlay at +5 °C	6 hours	Max overlay at +10 °C	5 hours
Max overlay at +20 °C	2 hours	Max overlay at +30 °C	1 hour
Steel coating	Two layers, ~1 mm each	Bond primer layer	Minimum 0.5 mm

Working and overcoating periods vary with temperature and site exposure. Apply repair materials within the temperature-specific permitted window; do not let a bonding coat become contaminated or dry beyond its approved interval.

TYPICAL REPAIR & CORROSION PROTECTION SYSTEM

STAGE	MATERIAL / METHOD
1 | Survey	Confirm sound concrete, expose defective areas and examine reinforcement condition.
2 | Concrete preparation	Remove damaged material; clean and pre-wet to saturated surface-dry condition.
3 | Steel preparation	Remove rust, scale, dirt and grease; blast to suitable Sa 2 condition.
4 | Mixing	Blend complete A and B liquids, then add C powder; mechanically mix without added water.
5 | Application	Use two steel-protection coats or an even wet-on-wet concrete bond coat, as required.

CONCRETE SURFACE PREPARATION

Remove loose, weak, damaged or contaminated concrete. Mechanically prepare to a sound, open-textured finish free from laitance, dust, oil and curing compounds. Pre-wet concrete thoroughly to a saturated surface-dry condition with a dark, matt finish and no standing water in pores.

REINFORCEMENT SURFACE PREPARATION

Expose and clean reinforcement to remove rust, scale, old mortar, grease and loose residues. Prepare steel by abrasive blasting or high-pressure water jetting to approximately Sa 2 cleanliness under ISO 8501-1, as appropriate to the approved system method statement.

APPLICATION	SPECIFIED CONTROL
Reinforcement coating	Two coats at approximately 1 mm each; allow first coat to harden before second.
Concrete bonding primer	Minimum 0.5 mm, brushed into sound pre-wetted concrete; repair mortar wet-on-wet.
Repair mortar placement	Observe temperature-based maximum overlay timing and approved mortar compatibility.

Avoid direct sun, strong wind and rainfall during preparation or application. Use only sound, properly prepared concrete and steel. Repair mortar compatibility, condition of the substrate and corrosion treatment must be checked before application.

BONDING, CORROSION PROTECTION & OVERLAY

For bonding, work a uniform coat into the prepared, pre-wetted concrete using a firm brush or suitable spray equipment, filling pores to a minimum 0.5 mm film; apply the repair mortar wet-on-wet. For reinforcement protection, use two approximately 1 mm coats, applying the second when the first resists a fingernail (typically 2-3 hours at +20 °C). Place repair mortar wet-on-dry over the completed protective coats.

Installation & Product Support

KREVO Bond Cem-EP | Three-component mixing, application control, limitations and global contacts

MIXING PROCEDURE

- Prepare full matched sets: liquid Component A, liquid Component B and powder Component C.
- Shake A and B, combine the liquids and mechanically blend for about 30 seconds.
- Add powder Component C gradually while stirring with a low-speed mixer (below 250 rpm).
- Mix for at least 3 minutes; allow 5-10 minutes to achieve brushable consistency. Do not add water.

APPLICATION PROCEDURE

- Concrete bonding: brush or spray onto clean, pre-wetted, sound concrete; fill pores uniformly.
- Apply compatible repair mortar wet-on-wet over the fresh bonding film, within the stated overlay window.
- Steel protection: coat cleaned bars at about 1 mm per layer; apply second layer after first has hardened.
- Protect newly coated areas from rain and contamination; apply repair mortar wet-on-dry over steel coats.

LIMITATIONS & QUALITY CONTROL

- Apply with ambient and substrate temperatures between +5 °C and +35 °C.
- Do not add water, use partial component packs or coat unsound/unprepared substrates.
- Do not use with fast-setting repair concrete or mortar unless compatibility is separately established.
- Avoid direct sunlight, strong winds and rain; observe the maximum repair-mortar overlay time.
- Clean tools promptly using water before hardening; hardened material requires mechanical removal.

HEALTH, SAFETY & ENVIRONMENT

For trained industrial applicators only. Review the current KREVO Safety Data Sheet before use. Wear chemical-resistant gloves, safety glasses, protective clothing and suitable respiratory protection during powder handling and mechanical preparation. Avoid breathing dust and prevent residues from entering drains. Dispose of waste and packaging in accordance with local regulations.

QUALITY & PRODUCT INFORMATION

Performance is dependent on component ratios, substrate condition, surface preparation, ambient temperature, curing and repair material compatibility. Confirm current KREVO product tests, relevant approvals and project-specific method statements before final technical acceptance.

KREVO | GLOBAL CONTACTS

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