KREVO
Exploring Chemistry

KREVO Repair MicroConcrete

Free-flowing high-strength cementitious micro-concrete | Non-shrink repair and grouting | 50-500 mm

PRODUCT DESCRIPTION

KREVO Repair MicroConcrete is a single-component, free-flowing, shrinkage-compensated cementitious micro-concrete formulated with Portland cement, selected aggregates and special additives. With a maximum aggregate size of 10 mm, it is designed for formed repair of deteriorated structural concrete and controlled grouting in hot or tropical conditions.

ADVANTAGES

- Single-component dry material requiring only measured clean water.
- Free-flowing consistency for congested and formed repair sections.
- Shrinkage-compensated with rapid strength development.
- Strong adhesion and compatibility with conventional structural concrete.
- Convenient installation, reduced mixing waste and vapour permeability.

TYPICAL USES

Structural repair of beams, columns and concrete members • Formed reinstatement of damaged sections • Voids and inaccessible repair zones • Small-volume cast-in-place repairs • Thick-section baseplate grouting above 100 mm

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Material type	Single-component, free-flowing, shrinkage-compensated cementitious micro-concrete
Chemical base	Portland cement, selected graded aggregates and special additives
Appearance	Grey powder
Maximum aggregate size	10 mm
Packaging	40 kg bags
Shelf life	6 months minimum from manufacture in original unopened bags
Storage	Cool, dry conditions at +5 °C to +35 °C; protect from heat, sunlight and moisture
Water-to-powder ratio	0.08-0.11 (approximately 3.2-4.0 L water per 40 kg bag)

TECHNICAL PERFORMANCE SPECIFICATION

PROPERTY / TEST METHOD	SPECIFIED VALUE
Compressive strength | 1 day	≥ 35 MPa
Compressive strength | 3 days	≥ 40 MPa
Compressive strength | 7 days	≥ 45 MPa
Compressive strength | 28 days	≥ 65 MPa
Compressive-strength test basis	ASTM C109 / C1107 as stated in supplied specification
Water absorption | BS 1881, 28 days	2.3%
Fresh mortar density	2.5 kg/L
Pot life | +25 °C	30 minutes
Yield per 40 kg bag	18.4 liter

Application & System Data

KREVO Repair MicroConcrete | Layer thickness, mixing water, substrate conditioning and formed placement

APPLICATION PROPERTIES

PARAMETER	SPECIFICATION	PARAMETER	SPECIFICATION
Air temperature	+5 °C to +35 °C	Substrate temperature	+5 °C to +35 °C
Mixed-material limit	Below +30 °C	Pot life at +25 °C	Approximately 30 min
Water addition	3.2-4.0 L / 40 kg	Fresh density	Approximately 2.5 kg/L
Minimum pour	50 mm	Maximum pour	500 mm
Baseplate grout depth	100 mm minimum	Theoretical yield	18.4 L per bag

Mix full 40 kg bags using a suitable forced-action mixer. Use 3.2-4.0 L of clean water per bag as specified, and control mixed-material temperature below +30 °C, especially during warm-weather application.

TYPICAL CONCRETE REPAIR SEQUENCE

STAGE	MATERIAL / METHOD
1 | Assessment	Identify unsound areas and verify required repair geometry and reinforcement clearance.
2 | Preparation	Break out defective concrete, clean and roughen; remove dirt, oil and laitance.
3 | Steel / bond	Clean exposed steel; protect or apply KREVO Bond EP.
4 | Formwork	Install secure watertight forms with a suitable head and air vents; pre-wet concrete.
5 | Placement	Mechanically mix complete bags, pour continuously, protect and cure exposed surfaces.

SUBSTRATE PREPARATION

Existing concrete must be clean, sound, rough and free of oil, grease, laitance and loose material. Remove defective concrete and prepare an open-textured bonding surface. Thoroughly pre-wet absorbent concrete before placement, avoiding free-standing water.

REINFORCEMENT & BONDING

Expose and clean embedded reinforcement to remove scale, rust, grease and debris. Where specified, protect the steel with a suitable compatible corrosion-inhibiting system. For dense substrates or large repairs, an approved compatible epoxy or polymer-modified bonding agent may be used to improve adhesion.

INSTALLATION CONDITION	SPECIFIED CONTROL
Existing concrete	Clean, rough, sound surface; pre-saturate absorbent substrate and avoid free water.
Exposed reinforcement	Remove rust and scale; use a compatible corrosion-control coat where specified.
Formed / baseplate repairs	Provide watertight forms, effective air release and continuous gravity flow.

Design and install secure, leak-tight formwork with sufficient placement and air-release points. Ensure the repair cavity and reinforcement geometry allow complete filling, and provide a continuous flow path to prevent air pockets.

FORMWORK & PLACEMENT CONTROLS

Use a sealed formwork arrangement and maintain sufficient hydrostatic head for an uninterrupted pour. Protect baseplates, formwork and mixing materials from direct sunlight in hot weather. Confirm that existing movement joints and designed structural details remain functional.

Installation & Product Support

KREVO Repair MicroConcrete | Mixing, pumping or pouring, curing, site limitations and global contacts

MIXING PROCEDURE

- Empty the full 40 kg bag into a suitable mixer; dry mix for approximately 3 minutes before adding water.
- Use approximately 3.2-4.0 L clean water per 40 kg bag; begin with 3.5-3.8 L as indicated for target flow.
- Mix mechanically for at least 3 minutes, adding any remaining water gradually; continue for about 2 minutes until uniform.
- Avoid hand mixing, partial bags and aluminium mixing equipment; allow 2-3 minutes for trapped air to escape before pouring.

PLACEMENT & FINISHING

- Pre-wet the substrate thoroughly and check that forms are strong, stable and watertight.
- Place continuously into the prepared formwork; maintain sufficient head and provide vents to release entrapped air.
- Design pours generally between 50 and 500 mm per layer; baseplate grouting requires at least 100 mm thickness.
- Protect fresh work from rain until initial set; cure exposed surfaces with approved compound, wet hessian or polyethylene sheeting.

LIMITATIONS & SERVICE NOTES

- Ambient and substrate temperatures: +5 °C to +35 °C. Keep mixed micro-concrete below +30 °C.
- In hot weather, shade materials and formwork and use suitably chilled water where necessary.
- Secure formwork against leakage or movement; provide sufficient pour access and air-release openings.
- Do not use part bags, hand mixing or excessive water. Keep water addition within the specified range.
- Clean tools with water immediately after use; fully hardened material requires mechanical removal.

HEALTH, SAFETY & ENVIRONMENT

For use by trained industrial applicators. Read the current KREVO Safety Data Sheet before mixing or placement. Avoid inhalation of cement dust; wear protective gloves, eyewear, work clothing and suitable respiratory protection. Protect eyes and skin from wet cementitious mixtures; dispose of residues and packaging responsibly.

QUALITY & PRODUCT INFORMATION

Specified values depend on the complete production formulation, water/powder ratio, mixing and curing conditions. Confirm product-specific KREVO test evidence, current batch instructions and project requirements before relying on performance values or claiming standards compliance.

KREVO | GLOBAL CONTACTS

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