KREVO Repair Mortar

High-strength fibre-reinforced repair mortar | Shrinkage-compensated | Structural concrete restoration

PRODUCT DESCRIPTION

KREVO Repair Mortar is a single-component, high-strength cementitious repair mortar formulated with selected cement, graded aggregates, fibres and performance additives. The shrinkage-compensated system is designed for durable reinstatement of damaged concrete and enhanced resistance to carbonation, chloride ingress, sulphate attack and freeze-thaw exposure.

ADVANTAGES

- High bond strength and dense, low-permeability repair matrix.
- Shrinkage-compensated formulation to limit drying shrinkage.
- High early strength and 70 MPa compressive strength target at 28 days.
- Fibre reinforcement and resistance to freeze-thaw exposure.
- Single-component dry powder: mix with the specified quantity of clean water.

TYPICAL USES

Parking structures • Floor, deck and slab repairs • Columns and walls • Water and wastewater tanks • Bridges, tunnels and dams • Marine and industrial concrete structures.

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Material type	Single-component, fibre-reinforced, cementitious repair mortar
Composition	Selected cement, graded aggregates, fibres and additives
Appearance	Grey dry powder; add clean potable water
Nominal package size	40 kg bags
Yield	Approximately 20 litres per 40 kg bag
Volatile organic content (VOC)	< 10 g/L
Storage / shelf life	Dry and shaded below +35 °C / 12 months
Specified mix water	Approx. 4.75 L per 40 kg bag; confirm bag instructions

TECHNICAL PERFORMANCE SPECIFICATION

PROPERTY / TEST METHOD	SPECIFIED VALUE
Compressive strength | ASTM C109	70 MPa at 28 days
Flexural strength | ASTM C580	10 MPa at 28 days
Slant-shear bond | ASTM C882	40 MPa at 28 days
Structural repair classification | EN 1504-3	Class R4 design criterion
Laboratory water / powder ratio	0.11 by mass (reference test condition)
VOC level	< 10 g/L
Vertical application thickness	8–12 mm, unsupported
Formed / horizontal thickness	Up to 25 mm without aggregate extension
Horizontal thickness with aggregate	Up to 100 mm, subject to approved mix design

Application & System Data

KREVO Repair Mortar | Mixing, substrate conditioning, bonding, placement and curing

APPLICATION PROPERTIES

PARAMETER	SPECIFICATION	PARAMETER	SPECIFICATION
Application minimum	+4 °C	Max. mixed-mortar temp.	+35 °C
Mixing water	Approx. 4.75 L / 40 kg	Mechanical mixing	Approximately 3 minutes
Unsupported vertical repair	6–10 mm	Formed / horizontal repair	Up to 25 mm
Aggregate-extended repair	Up to 100 mm horizontal	Aggregate addition	10 mm, up to 15 kg / 25 kg
Curing	7 days moist cure	Bag size / yield	40 kg / approx. 20 L

Only full 40 kg bags should be mixed using forced-action mechanical equipment. Water demand can vary by manufacturing batch; always follow the quantity printed on the supplied packaging.

TYPICAL CONCRETE REPAIR SYSTEM

STAGE	MATERIAL / METHOD
1 | Prepare repair	Break out unsound concrete, saw-cut edges and clean the substrate.
2 | Treat reinforcement	Remove rust and apply compatible corrosion protection when specified.
3 | Condition surface	Bring to saturated surface-dry state, unless epoxy bonding system requires otherwise.
4 | Apply bond coat	Use approved acrylic, SBR/cement or epoxy bonding system KREVO Bond EP.
5 | Place & cure	Compact and finish mortar; begin seven-day moist curing or approved curing treatment.

SUBSTRATE PREPARATION

Remove all loose, weak and unsound concrete. Saw-cut the repair perimeter to a minimum depth of 6 mm. Clean the exposed concrete of oil, paint, grease, dust, laitance and corrosion deposits. Expose reinforcement sufficiently to allow complete mortar compaction behind the bars.

REINFORCEMENT TREATMENT

Remove corrosion from exposed steel in accordance with an approved project repair procedure, with reference to ICRI guidance. Where specified, coat reinforcement with a compatible corrosion-protection or bonding treatment before placing the mortar.

BONDING OPTION	APPLICATION REQUIREMENT
Acrylic bonding coat	Brush into saturated surface-dry concrete; avoid puddling.
SBR/cement slurry	Use compatible KREVO Latex and cement blend; place mortar while slurry remains wet.
Epoxy bond coat	For high bond / immersion applications; place mortar into tacky KREVO Bond EP.

Pre-wet the prepared concrete and bring it to a saturated surface-dry condition before application of water-based bonding systems. For epoxy bonding, follow the approved primer instructions and place the mortar while the epoxy remains tacky.

BONDING & SUBSTRATE PRIMING

Select an approved compatible acrylic bonding coat, KREVO Latex/cement slurry or epoxy bonding coat KREVO Bond EP for the exposure conditions. Apply thoroughly without puddling. Do not allow a wet-on-wet cement slurry to dry before mortar placement; observe the epoxy bonding coat working window.

Installation & Product Support

KREVO Repair Mortar | Mixing, repair thickness, curing, limitations and global contacts

MIXING PROCEDURE

- Prepare a clean mechanical forced-action mixer; do not mix by hand.
- Use approximately 4.75 litres of clean water per 40 kg bag, subject to the supplied bag instructions.
- Add the complete bag and mix for approximately 3 minutes until uniform and homogeneous.
- Do not part-mix bags or exceed the specified water dosage; place immediately after mixing.

PLACEMENT & FINISHING

- Compact fresh mortar firmly against the prepared concrete and fully around exposed steel.
- For unsupported vertical repairs, apply 6–10 mm thickness; formed or horizontal repairs may reach 25 mm.
- For approved horizontal deep repairs, 10 mm aggregate may be added to reach up to 100 mm thickness.
- Finish with a suitable trowel; protect and cure the repaired area immediately.

LIMITATIONS & CURING

- Mixed-mortar temperature must not exceed +35 °C.
- Do not apply below +4 °C, in rain, or on surfaces exposed to active running water.
- For aggregate-extended mixes, minimum application thickness increases to 25 mm.
- Apply an approved curing compound or provide continuous moist curing for seven days.
- Do not expose the repair to running water until fully cured; confirm compatibility before overcoating.

HEALTH, SAFETY & ENVIRONMENT

For trained industrial applicators only. Review the current KREVO Safety Data Sheet before use. Cementitious powder can cause irritation; wear gloves, eye protection, suitable work clothing and respiratory protection for dust exposure. Avoid skin and eye contact and dispose of waste according to applicable regulations.

QUALITY & PRODUCT INFORMATION

Material performance depends on production consistency, water content, sound substrate preparation, reinforcement treatment, compaction and curing. Confirm actual KREVO product properties and any declared structural classification from current quality-control and testing records before project certification.

KREVO | GLOBAL CONTACTS

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