KingRep® 1

One-component polymer-modified cementitious fairing coat and cosmetic repair mortar, applied by brush or roller.

DESCRIPTION

KingRep 1 is a one-component, acrylic polymer-modified powder. Mixed with water, it gives a consistent, smooth and fine cementitious coat that can be applied by brush or roller.

APPLICATIONS

- Repair of fair-faced concrete.
- Thin-layer render.
- Skim coat over pinholes and minor honeycombing.
- Pore sealer and levelling coat.
- A uniform surface for a subsequent paint finish.

ADVANTAGES

- Shrinkage-controlled polymer-modified mortar, which reduces the risk of cracking.
- Easy to apply: one component, needs only the addition of water.
- Excellent adhesion to concrete: no separate primer or curing is needed.
- Compatible with other protective coatings.
- Can be applied to a feather edge.
- Suitable for internal and external use.
- Cost-effective: applied by hand, no formwork needed.

TECHNICAL PROPERTIES

Colour:	Grey, white
Working life:	40 - 60 min @ 25°C
Setting time:	2 - 3 hr @ 25°C
Mixed density:	1.7 ± 0.1 g/cm³
Compressive strength, wet cure (ASTM C109/C109M):	≥ 10 MPa @ 28 days
Flexural strength, wet cure (ASTM C348):	≥ 4 MPa @ 28 days
Tensile strength, wet cure (ASTM C190):	1.5 MPa @ 28 days
Bond strength (ASTM C1583):	≥ 1.5 MPa @ 28 days
Coefficient of thermal expansion:	6.5 - 12 × 10^{-6} /°C
Maximum aggregate size:	0.1 mm
Application thickness:	Feather edge to 1 mm per coat Up to 3 mm in coats
Application temperature:	5 - 35°C
Water per 25 kg bag:	7.5 - 8.5 litre
VOC (ASTM D2369):	< 10 g/l

METHOD OF USE

Substrate preparation

All surfaces must be clean, sound and free from contamination. Clean the prepared area thoroughly by brush and/or compressed air, and soak it with water immediately before applying KingRep 1.

Priming

No separate primer is needed.

Mixing

Use a mechanical mixer or a drill fitted with a suitable paddle; small quantities can be mixed by hand with suitable tools in a bucket. Pour 7.5 - 8.5 litre of clean water per 25 kg bag into a clean container, then add the powder slowly while mixing continuously at low speed (400 - 600 rpm). Mix for 3 minutes until the consistency is uniform.

For higher scratch resistance, replace 50% of the mixing water with KingBond SBR100.

Placing and finishing

Apply KingRep 1 to the prepared substrate by brush or roller, from a feather edge to 1 mm per coat. Build up to 3 mm in further coats.

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Curing

No curing is needed in normal conditions. In harsh weather, such as high wind or high temperatures, cure with KingKure 100A or with wet hessian covered by polyethylene.

CLEANING

Clean all tools with water immediately after use. Hardened material can only be removed mechanically.

YIELD

Approximately 19.5 litre of mortar per 25 kg bag.

PACKAGING

KingRep 1 is available in 25 kg bags.

STORAGE

Shelf life is 1 year when stored under cover, out of direct sunlight and protected from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult KingKrete's Technical Services Department.

HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation of dust.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative. KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All products originating from KingKrete's Middle East facility are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, ISO 14001 and ISO 45001.

* Properties listed are based on laboratory-controlled tests.
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STATEMENT OF RESPONSIBILITY

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NOTE

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KingKrete Middle East
www.kingkrete.com

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