

weber.rep KB duo

Corrosion protection & bondcoat

Mineral corrosion protection for reinforcing steel bars and bonding layer for concrete substrates

Fields of application

As combination product for use as mineral corrosion protection for reinforcing steel bars in

reinforced concrete structures and as a cement-based bondcoat for the concrete repair

mortar weber.rep R4 duo . Also as bondcoat for cement-based solid-bonded screeds. For

indoors and outdoors.

Description

weber.rep KB duo is a one-component polymer-modified dry mix mortar. It complies with the requirements of EN 1504-07. Together with the concrete repair mortar weber.rep R4 duo it is part of a system which is tested according to ZTV-ING** (Additional Technical Terms of Contract and Guidelines for Civil Engineering Works) and DAfStb-Rili (test certificates). With German approval.

Composition

Cement, mineral fillers, polymer resins, regulating additives

Main features

- excellent bonding strength
- easy application/easy to spread
- short through-drying time
- mineral-based
- long pot life
- no drop-off on vertical surfaces

- high protective effect against corrosion
- very resistant against severe environmental influences
- approved by the German Federal Road Authority

Technical values

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| Application thickness as corrosion protection: | min. 1.0 mm in 2 working steps |
| Application thickness as bondcoat: | 2 mm - 5 mm |
| Application temperature: | +5°C - +30°C |
| Fresh mortar density: | approx. 2.0 kg/dm ³ |
| Consistency: | brush grade |
| Powder bulk density: | approx. 1.1 kg/dm ³ |
| Pot life: | approx. 80 minutes |

Quality control

weber.rep KB duo is subject to a regular quality control by internal and external monitoring.

General notes

- All characteristics mentioned in this data sheet are based on a temperature of +20°C without draught and a relative humidity rate of 60%.

Special notes

- Do not add any foreign substances during mixing and application.

Substrate preparation

As corrosion protection

- All damaged concrete parts should be cut back at least 15 mm behind any exposed reinforcement.
- De-rust corroded reinforcement steel bars according to EN 12944-4, scale 2.5 (bright surface).

As bonding layer

- The substrate must be clean, frost-free, absorbent, load-bearing, rough, free from all adhesion-impairing substances.
- If necessary, use appropriate mechanical means, for e.g. milling, blasting, etc.
- Tensile strength (pull-off strength) of concrete surfaces $\geq 1.5 \text{ N/mm}^2$
- Pre-wet concrete substrate intensively, avoiding formation of puddles; allow to dry until dull-moist at the time of processing.
- The substrate preparation must be adapted to the specific job site conditions.

Working instructions

Mixing

- Mix the content of a bag with 30% of water (6 liters per 20 kg resp. 1.5 liter per 5 kg dry mortar) until lump-free.
- First pour water and add the powder step by step.
- Mix 3 minutes intensively with electric drill and the stirrer weber.sys Rührpaddel no. 1 (5 kg bag) and no. 2 (20 kg bag).
- Stir mixed material occasionally during processing, since it is likely to stiffen.

Application as corrosion protection

- Apply 2 pore-free coats of weber.rep KB duo on the de-rusted steel rods, using a paintbrush; respect a waiting time of 2 - 3 hours between each operation.
- weber.rep KB duo can be used as bondcoat, as soon as the second coat has hardened sufficiently (approx. 2 - 3 hours).

Application as bondcoat

- Work weber.rep KB duo vigorously onto the prepared concrete substrate using a brush, mason's swab or paintbrush.
- Apply the concrete repair mortar weber.rep R4 duo full-surface on the fresh bondcoat.
- Working areas should not be oversized in order to allow application of subsequent layers "wet-in-wet"; the dimensions of working areas must allow that the concrete substitute mortar can always be applied to the fresh bondcoat, i.e. before skin formation occurs. The mortar for the bondcoat and for the concrete repair should therefore be mixed at the same time.
- Clean mixing equipment and tools with water (fresh product). Hardened material can only be removed mechanically.

Practical information

Colours:
concrete grey

Application thickness: corrosion protection: min. 1 mm bondcoat: approx. 2 mm - 3 mm

Tools: Electric drill + stirrer weber.sys Rührpaddel no. 1 (5 kg bag) and no. 2 (20 kg bag), brush, mason's swab, paintbrush

Water demand:
max. 6 liters / 20 kg resp. max. 1.5 liter / 5 kg

Drying time:
approx. 2 - 3 hours per layer

Storage:
The product can be stored at least 12 months in its original unopened packaging, if kept dry.

Consumption / yield

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| as corrosion protection per m steel, \varnothing 14 mm, with 2 coats | approx. 190 g/meter |
| as a bondcoat, depending on substrate roughness | approx. 1.5 - 2.5 kg/m ² |

Packagings

| Type | Sales unit | Number / euro-pallet |
|----------------------|------------|----------------------|
| Plastified paper bag | 5 kg | 192 bags |
| Paper bag | 20 kg | 42 bags |