

weber.rep 753

Concrete replacement PCC 8 mm

Polymer-modified, ready-mix dry mortar PCC I for levelling concrete surfaces with vehicular traffic

Fields of application

As concrete replacement, surfacing and levelling mortar for horizontal, slightly inclined surfaces subject to dynamic mechanical loads. Also for increasing the concrete coverage of the reinforcement. Suited for bridge decks, engineering structures, parking car decks, production areas etc. For indoors and outdoors.

Description

weber.rep 753 is a hydraulically-setting and factory-mixed dry mortar according to EN 1504-3. It also fulfils the requirements for PCC I mortars according to the German specifications TL BE-PCC of ZTV ING (Additional Technical Terms of Contract and Guidelines for Civil Engineering Works). With official approval (Germany).

Composition

Cement, mineral fillers, polymers, regulating additives

Main features

- high resistance to frost and de-icing salts
- very high mechanical strengths
- excellent bonding strength
- low shrinkage and low tensions when hardening
- good water retention capacity
- grain size 0 - 8 mm
- low water / cement value

Technical values

Application thickness:	25 mm - 100 mm
Application temperature (air and substrate):	+5°C - +35°C
Pot life:	approx. 45 minutes
Powder bulk density:	approx. 1.7 kg/dm ³
Fresh mortar density:	approx. 2.25 kg/dm ³
Flexural strength (7 days):	approx. 12 N/mm ²
Compressive strength (28 days):	approx. 60 N/mm ²
Dynamic modulus of elasticity:	35.000 N/mm ²
Adhesive tensile strength:	> 2 N/mm ²
Temperature compatibility:	≥ 2.0 MPa
Capillary water absorption:	≤ 0.5 kg/m ⁻² h ^{-0.5}
Chloride content:	≤ 0.05%
Carbonation test:	passed
Class of reaction to fire (EN 1504-2):	E

Quality control

weber.rep 753 is subject to a regular quality control by external monitoring and self-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 70%.

Special notes

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

Substrates

- High-strength concretes, vacuum-coated surfaces or extremely smooth and dense concrete surfaces require a more intensive treatment adapted to the individual

case.

Substrate preparation

- The substrate must be clean, frost-free, absorbent, load-bearing, rough and free from all adhesion-impairing particles/substances.
- A sufficiently rough and porous substrate as well as a good penetration of the bonding layer are mandatory conditions for the performance of the system.
- Remove oil, petrol and rubber abrasion marks of vehicular traffic completely.
- Concrete layers with corrosion-promoting components (for ex. chlorides), loose concrete parts over corroded areas, other damaged concrete parts, old paint or coating residues as well as residues of old waterproofing compounds must be completely removed.
- After preparation the coarse grain skeleton of concrete must be exposed; the removal of the cement skin on the concrete surface is not sufficient. Determine the adhesion of the mortar to the concrete on a test area. As a rule, an abrasive substrate preparation must be carried out. Treat the whole surface by appropriate mechanical means, so that an average tensile strength (pull-off strength) of 1.5 N/mm² is reached.
- Expose corroded reinforcing steel bars and proceed to de-rusting by sand blasting in accordance with EN ISO 12944-4 up to the brightness scale SA 2 ½; afterwards apply the corrosion protection with 2 layers of the cement-based compound weber.rep KB duo. Respect a drying time of approx. 2 - 3 hours between 1st and 2nd layer.
- Pre-wet all prepared worn-out concrete areas intensively, avoiding the formation of puddles; allow to dry until dull-moist at the time of further operations.
- The substrate preparation must be adapted to the specific job site conditions.

Working instructions

Mixing

- Mechanical application: in case of large areas use a pre-wetted forced-action mixer; first pour the water and then the powder step by step.
- Manual application: in case of small quantities mix the bag content (25 kg) with max. 2.45 liters of water until lump-free, using an electric drill and the stirrer weber.sys Rührpaddel no. 2 or no. 8.

- Mixing time: at least 3 minutes.
- For partial quantities, mix approx. 10 kg of powder with 1 liter of water.

Application

- Mechanical application: the mortar can be applied with a mortar screw pump, like P 100 (company m-tec) with hoses of max. 26 meters and diameter 45 mm. For full information request our technical advice.
- Keep the working areas as small as possible in accordance with weather conditions and pot life for the bondcoat and the repair mortar.
- Apply the cement-based bondcoat weber.rep KB duo in slurry consistency on the dull-moist substrate, using a brush or a stiff broom.
- Spray weber.rep 753 with above-mentioned pump or apply with a flat trowel or a wide spatula; compact the mortar well into place.
- weber.rep 753 is applied in one layer in a thickness of 25 mm - 100 mm onto the fresh bondcoat and well compacted into place.
- Without delay rule level in the required thickness, using a gauge or a lath.
- Rule off to a flat and in-plane surface with a wooden float.
- The use of vibrating beams is advisable for large areas.
- Clean mixing equipment and tools with water (fresh product). Hardened material can only be removed mechanically.

Aftercare

- Avoid exposure to frost and to excessive sunlight and draughts in order to protect from too rapid drying out (dehydration); take appropriate measures, e. g. by keeping moist or by covering with polyethylene foils, textile membranes for at least 5 days.
- Do not spray fresh mortar with water and protect from rain.

Practical information

Colours:

cement grey

Application thickness:

25 mm - 100 mm

Water demand:

max. 2.45 liters / 25 kg

Drying time:

like concrete

Tools:

Forced-action mixer or electric drill + stirrer weber.sys Rührpaddel no. 2 or no. 8, screw pump, flat trowel, wide stapula, gauge, lath, vibrating beams, wooden float; for bond-coat: brush or stiff broom

Storage:

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

Consumption / yield

at 10 mm layer thickness approx. 20.0 kg/m²

Packagings

Type	Sales unit	Number / pallet
Paper bag	25 kg	42 bags