



BETONPROTEKT F

Fine levelling compound and corrosion protection of concrete surfaces, EN 1504-2: PCC coating for concrete protection

- ▶ Additional corrosion protection for concrete
- ▶ Protection against damage due to cyclic freeze-thaw conditions
- ▶ Grain size up to 0,4 mm
- ▶ For fine-levelling of concrete surface
- ▶ For surface damage repair on concrete
- ▶ For reparation of aggregate nets and open pores on concrete surface
- ▶ For fine levelling of cement and cement-lime plasters
- ▶ Anticorrosive protection of new and undamaged old porous concrete surfaces
- ▶ Application with trowel or brush
- ▶ Machine application with wet procedure



PRODUCT DESCRIPTION

One-component, micro-reinforced, sulphate-resistant PCC repair mortar.

FIELD OF USE Micro-reinforced, repair mortar EN 1504-2 PCC protective coating for concrete:

- Suitable for protection from intrusion of substances (principle 1, procedures 1.2 according to EN 1504-9) protective coating for concrete
- Suitable for protection of concrete from corrosion (CO₂ barrier)

For levelling and protection of new as well as old and damaged concrete surfaces, for surface damage repair on concrete prefabricates and for fine levelling of cement and cement-lime plasters. For protection of horizontal and vertical inside surfaces of concrete animal food storage silos, waste water neutralization tanks, basins for process water and other solutions, cesspits, concrete sewage pipes, for oil-resistant protection of concrete oil catch tanks and waterproof protection of other objects from moisture, subsurface water and pressurized water. Layer thickness (one application) min. 1 to max. 5 mm.

PRODUCT PROPERTIES

- Additional corrosion protection for concrete
- Protection against damage due to cyclic freeze-thaw conditions
- Grain size up to 0,4 mm
- For fine-levelling of concrete surface
- For surface damage repair on concrete
- For reparation of aggregate nets and open pores on concrete surface
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- Application with trowel or brush
- Machine application with wet procedure

PRODUCT DATA

BASIC INFORMATION

Appearance Grey powder

Packing 25 kg in bag (plastificated) / 1200 kg (48 x 25 kg) on palette

Storage and expiration date 12 months from date of production if stored properly in undamaged original sealed packaging in dry and cool conditions. Date of production is printed on packaging.

TECHNICAL DATA

Type of product Cementitious polymer modified mortar

Weight of fresh mortar 1,992 kg/dm³ EN 1015-6:1999/A1:2007

Weight of hardened mortar 1,54 kg/dm³ EN 12190:2000

Grain size D_{max}: 0,4 mm EN 12192-1:2002

pH 11,5

Compressive strength after 28 days 44,41 MPa EN 12190:2000

Flexural strength after 28 days 8,88 MPa EN 12190:2000

Adhesive Bond on concrete plate 1,7 MPa EN 1542:2000

Together layer thickness 1-5 mm

INSTRUCTIONS FOR USE

CONSUMPTION from 3 to 4 kg/m² for approx. 2 mm layer thickness

BASE Surface has to be clean, solid and free of cement crust, dust, oil, greasy stains, low-binding particles and similar impurities.

PREPARATION In the case of unclean and very smooth surface we recommended sandblasting, grinding or similar. In the case of large damages and honeycombs in the surface we recommend reparation with BETONPROTEKT RT (repair mortar) and the rusty reinforcing rods cleaning and protecting with BETONPROTEKT K2 coating.
Bonding bridge:
 When applying BETONPROTEKT RT a bonding primer/bridge is not necessary.
 In case of more demanding substates we recommend the use of a proper bonding bridge.

MIX RATIO Approx. 5,75 L of water and 25 kg of dry mixture

MIX TIME Mix dry mixture with approx. 90% clean water into a homogenous mass of medium plastic consistency without clods. Leave it to rest for 5 minutes to intumesce and then stir it again thoroughly just before using it. If necessary, add some water to adapt the consistency the application, but don't exceed maximum quantity.
 Mix only the amounts of BETONPROTEKT F that can be applied in 60 minutes. Water must not be added to the mortar that is already in the binding phase.

MIX TOOL In order to achieve best possible results, the mixture is to be stirred with an electrical drill with suitable accessories for mixing mortar.

INSTALLATION Pre-fill surface defects with BETONPROTEKT F before applying as a smoothing coat. Apply BETONPROTEKT F onto the clean and solid surface in a uniform coat with trowel or brush (consumption approx. 1,5 kg/m²). Where BETONPROTEKT F is to be over-coated, finishing with a moist neoprene sponge or brush after initial set has taken place to provide a key for the coating. For pore (blowhole) filling, tightly trowel into the pores (blowholes) of the surface. For Wet Spray Application, consistency has to be adopt to application.

TOOL Steel trowel or brush.

CLEANING OF TOOL Clean tools immediately after the use before adhesive hardens. Hardened material on tools can only be removed mechanically.

USAGE TIME approx. 60 minures

LIMITATIONS

BASE TEMPERATURE +5°C min./ +30°C max.

AIR TEMPERATURE +5°C min./ +30°C max.

MATERIAL TEMPERATURE +5°C min./ +30°C max.

- WARNINGS**
- Ideal working temperature is between +15°C and +20°C. In case of high air and surface temperatures, the surface must be fully moistened.
 - It is essential to cure the repair mortar immediately after application for a minimum of 7 days to ensure full cement hydration and to minimise cracking. Use polythene sheeting taped down at the edges or apply an antievaporation compound KEMACURE EKO.
 - Times specified in the technical sheet were measured at the temperature of +23°C and relative air humidity of 50%. With higher temperatures prescribed time can be shortened while prolonged at lower temperatures.
 - Protect freshly installed material from freezing, rain and other weather conditions. The material should not be used at (surface, air, material) temperatures lower than +5°C.
 - Avoid application in direct sun and/or strong wind and/or rain. Do not add water over recommended dosage. Apply only to sound, prepared substrates. Do not add additional water during the surface finishing as this will cause discoloration and cracking. Protect freshly applied material from freezing.

Recommendation: Remains of the unhardened/unset material have to be removed in accordance with the legislation.

Data source: All technical data in this technical sheet was obtained by laboratory research. Actual data may differ due to different working conditions.

Local restrictions: Due to specific local regulations the installed product can differ from country to country. For exact instructions for use a country specific technical sheet should be obtained.

PROOFS

NORMS/ STANDARDS In accordance with EN 1504-2

SAFETY DATA

Irritating. Contains cement. Irritating to eyes, skin and respiratory tract. Contact with skin may cause hypersensitivity. In case of eye contact wash thoroughly with water at once and consult a doctor. In case of skin contact flood with a lot of water. Keep away from the reach of children. More data on storage, handling and use of mixture can be found in the safety sheet which contains safety, toxicological and ecological data. Warnings on the original packaging should also be considered.



LEGAL BASE

Information and recommendations related to use of KEMA products are presented in good faith and believed to be correct. The later is based on our knowledge and experience with the products. Information is supplied upon the condition that products are stored and used according to the recommendations and the persons receiving the same will make their own determination as to its suitability for their purposes prior to use. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to Information or the product to which information refers. In no event will KEMA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information or the product to which Information refers. Nothing contained herein is to be construed as a recommendation to the use any product, process, equipment or formulation in conflict with any patent, and KEMA makes no representation or warranty, expressed or implied that the use thereof will not infringe any patent. All orders fall under current sales and supply conditions. The user should always check the latest technical sheet available upon demand.