



CorroPro® CP44

Corrosion-inhibiting cement mortar for the protection of reinforcing rods

EN 1504-7



Description

The **CorroPro® CP44** is a one-component, cement based mortar reinforced with polymers and special additives, for use in concrete repairs as a corrosion-inhibitor for the protection of concrete reinforcing rods and as bonding primer for concrete repair mortars.

Advantages / Technical Characteristics

- It's easy to mix, requiring only the addition of water on-site to become a highly workable mortar
- Easy and fast to apply by brush, roller or spray gun on horizontal and vertical surfaces
- Excellent adhesion on metals, steel rods, concrete and other plasters
- High mechanical strength
- High alkalinity
- Highly resistant to water penetration and chloride ions
- Meets the requirements of EN 1504-7

Application fields

- Conforming to the control of anodic areas (Principle 11, Method 11.1 of EN 1504-9)
- Corrosion protection of reinforcement, before repairing by RM40 or RM40 Fine
- Bonding agent for repair mortars or other polymer reinforced plasters
- Preventive protection of reinforcement rods during application in high moist environments (underground or above ground constructions)

Technical Specifications

Density	: ~1.0 kg/L
Density of fresh mortar	: ~2.0kg/L
Mixing ratio	: ~0.48L of water per 2kg bag
Substrate Temperature	: + 5°C min / + 35°C max
Application Temperature	: + 5°C min / + 35°C max
Pot life	: ~1 hour at 20°C
waiting time between each coat	: approx. 4 hours (at 23°C)
waiting time before applying the repair mortar	: at least 6 hours (at 23°C)
Reaction to fire (Euroclass)	: E

Adhesion strength EN 1542	: $\geq 2 \text{ N/mm}^2$
Corrosion protection EN 15813	: pass test
Shear adhesion of coated steel to concrete EN 15184	: pass test
Indicative Consumption 90-100 g/m per reinforcing rod of 8mm diameter (2 mm thickness of applied product) 180-200 g/m per reinforcing rod of 16mm diameter (2 mm thickness of applied product)	

Instructions for use

SURFACE PREPARATION

A) Steel Reinforcement

Steel reinforcement must be dry and perfectly clean, free of dust, rust, plasters, oil grease and surface salts and generally any material that can negatively affect the bonding of the mortar or contribute to corrosion. Loose adhering material and segments must be removed by hand or suitable mechanical equipment (such as sand-blasting, high-pressure water blasting). If this is not applicable, then alternatively use a wire-brush until corrosion and other contaminants have been thoroughly removed.

B) Concrete

Concrete substrates must be sound and solid, free from dust, oil grease and any other contaminants. Loose adhering material and segments must be removed by hand or suitable mechanical equipment (such as sand-blasting, high-pressure water blasting). Dampen the substrate up to saturation, but allow the surface to dry before applying the mortar. Avoid standing water.

MIXING

Before mixing, ensure that all tools and mixing equipment are thoroughly clean, free of dust, other building materials and generally any substance that could affect the quality of the material.

Mix 0.48L of clean water with every bag (2kg) of CorroPro® CP44 in a suitable clean container, depending on the desired consistency.

Use a low speed mechanical stirrer for the preparation of the mortar, mix thoroughly for at least three minutes or until a homogeneous, free of lumps mixture is obtained and the desired consistency is achieved.

REMARKS / LIMITATIONS

- Use only at temperatures between +5°C and +35°C.
- Surface should be protected from rain or direct contact with water for at least 24-48 hours (depending on weather conditions) after application.
- Avoid application under extreme weather conditions, such as direct sunlight and strong winds.
- Never add water or new product to the mixture, which has started to set, in order to improve its workability.
- Do not add cement or aggregates to CorroPro® CP44.
- Apply the CorroPro® CP44 immediately after cleaning the steel rods, so that reinforcement will not be exposed for a long period of time.

APPLICATION

Apply the mixture in two coats of a total thickness of 2mm, using a brush, roller or spray gun. Apply the second coat only after the first one has completely dried (after 4-5 hours, depending on weather conditions), ensuring that the surface of the reinforcement has been completely covered. For applications where the CorroPro® CP44 is to be used as a bonding agent for repair mortars, then the substrate must be saturated with water beforehand. Apply using a brush or roller, ensuring that the complete surface of the steel rods has been covered and that irregularities or

cavities have been filled. Repair mortar RM40 or RM40 Fine should be applied while the bonding mortar is still fresh.

CLEANING OF EQUIPMENT

Clean all tools and mixing equipment thoroughly with plenty of water after completion of work, and while mortar is still fresh. Once set, the hardened material can only be removed using mechanical methods, due to its high adhesion on most compatible surfaces.

PACKING

2kg PE bags in a plastic container

COLOR OF MIXTURE

Brick red

STORAGE

CorroPro® CP44 should be stored in a sheltered, dry place, free from water and moisture. The product has a Shelf life of up to 3 months from production date, when properly stored in the original, unopened packaging.

Health and Safety Measures

- The product contains cement, which reacts as alkaline with water, moisture, sweat and/or other body fluids so it is classified as irritant. Follow normal precautions as with all cementitious materials and products.
- Harmful in contact with skin.
- Harmful if inhaled.
- **IF SWALLOWED:** Call a POISON CENTRE / doctor if you feel unwell and show the container or label.
- May cause respiratory irritation.
- Keep out of reach of children.
- Wash body and clothes thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wear respiratory protection.
- Please refer to Safety data Sheet for more information and advices regarding the safe handling, storage, use and disposal of the material.

Note 1: All Technical Data provided on section “Technical Specifications” are based on laboratory trials and tests, under conditions which may significantly differ from the ambient application conditions. Therefore, the actual technical characteristics may vary due to conditions or circumstances beyond company’s control.

Note 2: The information provided by our Technical Data Sheets or given by our employees, agents or distributors concerning the use of our products, is based upon extensive research and experience and are provided in good faith in order to help you. We guarantee the consistent high quality of our products; however, as we have no control over site conditions of the executions of the work, we cannot accept any liability for any loss or damage, which may arise as a result thereof.

Note 3: All cement based products, must be stored in dry sheltered places, on wooden pallets. Even under these circumstances, the products are influenced by the atmospheric moisture after a period of time. Since this period is not defined or standard, we strongly advise our customers not to use hardened products or if, generally, its quality due to storage is uncertain. In general, it is advisable that for cement based products, storage period should not exceed the 3 months.