

Crono

QUICK-SETTING REPAIR MORTAR.

HANDBOOK FOR PROFESSIONAL PRACTICE - REVIEW: 05 OCTOBER 2020

PLEASE NOTE:

This document extends the technical data sheet of **Crono** about the application on concrete roads and airport pavements. Please refer to the datasheet for all the information and data about other types of application. Some application procedure in this document are specific to pavements with high traffic and **could supersede the information contained in standard technical datasheet.**

Purpose of using the product:

Crono is a polymer-modified, fibre-reinforced, fast setting mortar for concrete repair. The product is designed to allow quick and reliable repair of concrete pavements. It has excellent adhesion with low shrinkage: these properties speed up the support preparation and reduce the application times of the entire job, allowing the reopening of traffic in a very short time.

Surface preparation:

Clean all surfaces thoroughly before the application of **Crono**. All surfaces must be sound and solid, free of dust, loose particles, oil, grease, and other adhesion inhibiting substances. In normal condition, there is no need for adhesion primers or specific profiling of the concrete. In case of oil contamination of the substrate, use **Ecobeton Degreaser** to clean the area. For large repair area, we highly recommend the use of **Evercrete Vetrofluid®** to seal and harden the substrate before proceeding with the repair. If rising damp, efflorescence or salt contamination is suspected, it is necessary to wait at least one week before the application of **Crono**. During this waiting period, it is possible to use the surface for usual vehicular traffic; immediately before the application of **Strutturale Fast** clean the area with water-pressure cleaning. If the area is uncontaminated, **Crono** could be applied as soon as **Evercrete Vetrofluid®** is dry to the touch.



Application of the product:

Crono can be applied in thicknesses from 0 to 10 cm. To fill deeper thicknesses is possible to add clean, dry gravel of 8-10mm size up to 30% in volume. To overlay a low thickness area, or to improve the adhesion of the patch, it is possible to use **Ecobeton Bonding Agent** either as adhesion primer layer and as an admixture. Refer to the technical data sheet of the product for further information.

Pot-life is ca. 20 minutes in standard temperature and humidity condition. In warmer seasons, it is possible to extend pot-life by adding the specific "Lento" additive. In cold weather, the "Rapido" additive will accelerate the process; do not apply if the surface or environment temperature is below 5°C. To obtain a self-levelling mixture, use the "Livella" admixture. These additives are available in single doses format per bucket or per bag.

Application on spot defects:

Prepare the surface as described in section "*Surface preparation*". If the reparation thickness is less than 1cm, pre-mix a primer slurry made of Portland cement and **Ecobeton Bonding Agent** in the ratio 1:1 by volume. Apply the slurry on the surface to repair and proceed with the application of **Crono** while the slurry is still fresh. If the primer slurry gets dry, apply a new coat of slurry before proceeding. Refer to instruction to mixing Strutturale Fast in the product technical datasheet.

Concrete slab edge repairs:

Follow the same instruction described in section "*Application on spot defects*" for low thickness reparation. If possible, use a casting containment formwork on the border of reparation to ease the profiling operation; pre-treat the formwork with a release agent. If the side border is part of a structural or construction joint, round the edge with a 45° cut of about 1-2 cm size.

Large-area repairs:

If the thickness of the area to repair is less than 1cm on average, use **Ecobeton Bonding Agent** directly in the mix of **Crono**. Dilute **Bonding Agent** with clean water in ratio 1:1 by volume and use this pre-mix to mix **Crono**. When possible, prepare all the product needed to repair in a single batch, e.g. with the help of a concrete mixer, to avoid the formation of cold joints. **Crono** is fibre-reinforced, so in many cases, there is no need for additional reinforcement. As soon as the set has begun, keep the surface moist for about 1 hour, then treat the repaired area with **Evercrete Vetrofluid®**.

Opening to traffic:

It is possible to open to the traffic after 4 hours from the begin of the set. If chemical resistance is needed quickly, consider treating the reparation with **Evercrete Vetrofluid®**.

Subsequent surface treatments:

Application of painted marking, resins, concrete sealers, hydrophobic agents or other products for concrete is possible after 24 hours from the initial set. **Evercrete Vetrofluid®** could be applied after 1 hour from the initial set.

Compatibility with existing concrete pavement:

Crono is designed to have mechanical properties similar to the existing concrete pavement. Thermal expansion is the same as concrete so that temperature excursions will not affect the bonding of the reparation with the original slab. The reparation itself has a strong resistance to chemicals, freeze-thaw cycles, deicing agents and is waterproof.

Other information:

Please feel free to contact our technical staff for any further information, write an email to **europa@ecobeton.it**

All the data and recommendations in this sheet are the expression of our knowledge and of test results. They cannot be considered as a warranty, involving our liability in case of misuse or the rules of the art have not been respected. Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith.