CONCRETE REPAIR PRODUCTS

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CEMENTITIOUS REPAIR MORTAR

STAYPUT ULTRAFINE PRODUCT DATA

PRODUCT DESCRIPTION-----

STAYPUT ULTRAFINE Is a unique fine cementitious coating developed using a blend of cement , multiple fine sands and other ingredients to produce a brushable penetrating coating that can be applied to old or new concrete surfaces that will offer waterproofing from either the negative or positive side of the structure to which the water is penetrating the structure from.

STAYPUT ULTRAFINE contains a migrating corrosion inhibitor which significantly increases the corrosion protection of the reinforcing steel In concrete.

STAYPUT ULTRAFINE also prevents the penetration of other liquids other than water in to its surface of the applied ULTRAFINE, there for not allowing the liquids to penetrate in to the surface to which the STAYPUT ULTRFINE is applied to.

APPLICATION USES

1. Repair of tilt slabs and precast panels
2. Repair of culverts , stormwater drains etc
3. Spallded or damaged concrete in salt sea air environments.
4. Sewage and water treatment plants.
5. Bridge barriers, pylons and concrete decks or T beams
6. Car parks and or underground basements.

Advantages when using STAYPUT ULTRAFINE

When applying Stayput Ultrafine to a properly prepared concrete

surface as described in the surface preparation section this Data sheet.

STAYPUT ULTRAFINE forms an extremely high strength bond

1. In a film build of concrete colour appearance to the substrate
2. Can be applied to either the positive or negative side of the concrete surface, where water penetration is a problem
3. Cracks of up to 0.5 mm can be sealed.
4. Can be tinted with coloured oxide
5. Can be applied to damp surfaces (helps with bonding)
6. Increases the impermeability of concrete surface significantly
7. Reduces greatly the penetration of chloride
8. Helps to enhance the properties of concrete against reinforcement corrosion.

REQUIREMENTS PRIOR TO APPLICATION

SURFACE PREPARATION

Remove any week or spalling concrete, loose stone or dusty unstable concrete areas.

If areas of concrete have large pieces missing or large blow out and bug holes , it is best to patch up those problem areas using STAYPUT H B for horizontal surfaces or STAYPUT HB "OHV" for vertical surfaces.

If the concrete surface remains dusty (use a broom or hand brush to determin if you can still get concrete dust) then totally soak that area with CRP LDH.

CRP LDH will penetrate and harden that surface, then reapply LDH as a primer and apply your "HB" or HB "OHV to the damp (LDH surface).

If there is rusty exposed reinforcing use a wire brush to remove any scaling rust or if reinforcing has no scaling or loose rusting apply a lavish coating of LDH to the total areas then apply your patching for repairs.

Then Apply the STAYPUT ULTRAFINE to a LDH damp surface (for a better bond) or water damped surface.

If on a horizontal surface and you have areas that hold puddles it will be a requirement to remove those puddles by way of brooming out the puddle and spreading out the excess moisture over the surface.

Do not apply any of the STAYPUT repair mortars to water filled areas of your concrete surface.

Apply to a dampened moist surface only, that has been moistened with water or CRP LDH.

If you are applying Stayput Ultrafine to tilt up or precast panels, and those panels have a sheen to then or a very smooth surface, it is best to

roughen up that surface by giving it a light sand or grind to remove the smooth surface and allow you to get a good key when you are applying your repair mortars to your prepared dampened surface.
If you are still experiencing difficulty in applying Stayput Ultrafine to your dampened surface , try the following

1. Using CRP LDH as a water content
2. Add Stayput Ultrafine to that content of LDH
3. Mix that powder and LDH until all turns in to a paste.
4. Apply CRP LDH or water to the area to be treated (don't over apply)
5. Using a sponge or rag, dip in to the bucket of paste.
6. Apply that paste in a circular motion over the area that is to have the full coating of Stayput Ultrafine applied .
7. Allow to dry.
8. Using a spray bottle filled with LDH or water , apply a mist spray over your sponge applied area.
9. Mix the Stayput Ultrafine as per mixing instructions and apply to your prepared area.
10. REMBER YOUR STAYPUT REPAIR MORTARS MUST BE APPLIED TO A DAMP SURFACE.

APPLICATION METHODS

STAYPUT ULTRAFINE can be applied by way of a plasterers hopper gun, or by using a paint brush or renderers brush in a circular motion over your prepared dampened surface.

A squeegee is useful as well but but a bit more difficult .

When applying Stayput Ultrafine , the coating must be thick enough that you cannot see the base slab that you are applying the Ultrafine to , be at least 1 mm thick as a minimum but no more than 3 mm.

MIXING EQUIPMENT

Low sheer electrical mechanical mixer (do not mix in a cement mixer)

Bucket ---- eye ware –and chemical resistant gloves.

MIXING METHOD

Stayput Ultrafine 20 kg pail.

Place 4.5 litres of water in a pail that is suitable for mixing your mortar.

ADD the STAYPT ULTRAFINE to the water at approximately ¼

Of the 20 kg pail and stir gently until the powder has dissolved and become liquid, keep adding the powder to the water while continuing to stir.

Add sufficient powder to the water content to gain your required paste consistency (viscosity).

Continue to mix your batch thoroughly for 3 to 4 minutes before applying to your dampened subject.

For a higher strength bond you can use 3 litres of water and 1.5 litre of CRP LDH as an alternative mix.

Depending on the ambient temperature you have a 30 minute application window.

OTHER IMPORTANT INFORMATION.

Keep an eye on your application , your first coat could have varied depths of thickness, it would be desirable to apply two coats, with the second coat being applied after the first coat has hardened, and apply that second coat to a damp surface.

Protect your application from extreme weather conditions ...HEAT >>WIND>>RAIN ..for at least 10 hours after application.

Curing will assist in this protection by covering with wet hessian , or by using a good quality curing compound such as CRP AC –LVS .

If you are going to paint your application it is best to apply any paint type product after 28 days.

STAYPUT ULTRAFINE PROPERTIES

APPEARANCE	GREY POWDER
GRAIN SIZE	MAXIMUM 0.5 mm
APPLICATION THICKNESS	0.5 to 2.5mm
CONTENT OF MIXING FLUID	4.5 LITRES OF WATER
OTHER MIXING FLUIDS	1. 5 LITR .LDH & 3 LITRE WATER
WORKING TIME	30 MINUTES
TEMPRATURE APPLICATION	+5 TO 40 DEG C
FINAL SETTING	3 TO 6 HOURS
IMPERMABILITY	Waterproof according to DIN 1048
CHLORIDE DIFFUSION	Reduces approximately 2 times according to NT Building 443-1955-11
IMPACT ABRASION	Significant resistance increased according to AS/NZS 4469.9.2003
COMPRESSIVE STRENGTH	1 day = 26.3 mpa 28 days 52.5 mpa
FLEXURAL STRENGTH	28 days 8.2 mpa
BOND STRENGTH	28 days 6.1 mpa
CARBONATION	Increased resistance is significant according to the COLURMETRIC METHOD
WATER ABSORBTION	Decreased by 3 times
ACIDIC MEDIUM RESISTANCE at pH 3-4	Approximately 2 times higher than conventional Portland cement mortar
STEEL REINFORCEMET	Steel corrosion is inhibited according to the Polarisation curves method

PACKAGING

STAYPUT ULTRAFINE IS AVAILABLE IN

20 KG PAILS AND 10 KG PAILS

IF STORED IN ITS UN OPENED CONTAINER THE PRODUCT HAS A SHELF LIFE OF 12 MONTHS, AND SHOULD BE HOUSED IN A DRY STORAGE AREA.

DISCLAIMER

Any advise ,recommendation ,information assistance and or provided service is in good faith and is believed by Concrete Repair Products to be appropriate and reliable. However any advise ,information ,assistance , recommendation ,or service provided by Concrete Repair Products is provided without liability.