



ECOFIX



Joining and bonding resin Admixture for hydraulic binders

GENERAL CHARACTERISTICS

Combination of non-saponifiable synthetic resins in the form of a white, creamy emulsion with a thick consistency, easily diluted in water.

Acts as an additional binder in addition to cement to reinforce mortar's bonding behaviour in thin layers.

FIELDS OF APPLICATION

Bonding bridges

- bonding fresh to hardened concrete
- anchoring fresh mortars to old mortars
- bonding different materials such as wood, bricks, etc...

Mortars for laying tiling and plaster

Creation of:

- masonry joints
- hard-wearing screeds
- anti-dust screeds
- fine screeds
- elastic screeds
- levelling screeds
- waterproof screeds
- sprayed, floated, waterproof coatings

Smoothing mortar

Repair mortars

- repairs to damage in concrete walls and floors
- smoothing spalling, holes, ridges
- miscellaneous reprofiling work
- renovation of concrete and reinforced concrete work.
- plugging cracks.

ECOFIX improves the bond strength, toughness, mechanical resistance and waterproofing of plaster.

In washes for plugging pores in absorbent materials (prefabricated cellular concrete, plaster, brick, etc.), and for covering the outer layers without dehydrating them.

1 litre of **ECOFIX** diluted in 2 to 4 l of water, depending on porosity.



HOW ADDING ECOFIX IMPROVES HYDRAULIC MORTAR

- Adherence and bonding strength

Considerably improved adherence to old concretes and mortars, stone walls, brick, metal, glass and plastic materials, in both dry and damp atmospheres.

- Elasticity

The modulus of elasticity is greatly reduced by the presence of elastic resin bridges and hence by decreasing the susceptibility to breakage.

- The wear resistance is 5 to 10 times greater than that of a mortar without **ECOFIX**

- Resistance to vibrations and shocks

Experience has shown that mortars with added **ECOFIX** are far more resistant to shocks and vibrations thanks to their elasticity.

- Plasticity and ease of handling

The presence of tensioactive agents in the dispersion produces a highly fluid, plastic mix for a constant water:cement ratio.

The mortar is easier to work with when it contains **ECOFIX**.

- Resistance to cracking

Reducing the quantity of mixing water by 10 to 20% and replacing it with **ECOFIX** produces mortars with much better resistance to cracking, due to the reduction in sweating and in susceptibility to the effects of drying (hot weather, dry air which absorbs moisture, wind, etc.).

The **ECOFIX** resin acts as a plasticiser and water retainer which slows down water evaporation by forming a barrier at the mortar's surface.

- Reduction in permeability

The use of **ECOFIX** makes it possible to save much of the surplus water needed to make and work with concrete and mortar, and decreases water movements.

Permeability is considerably reduced.

- Resistance to bending/traction and elongation at breakpoint

The presence of **ECOFIX** in the mortar improves resistance to bending and traction and elongation at breakpoint by 1.5 to 2 times. This explains the extremely elastic behaviour of **ECOFIX** mortar containing plastic material.

- Resistance to chemical agents

PREPARATION OF SURFACE & APPLICATION

- remove loose or flaking material by any mechanical means to obtain a sound, solid surface.

- carefully remove any grease, oil, traces of cement or asphalt and other blemishes.

- moisten at least one day in advance and soak the surface by washing with a 1:2 mix of **ECOFIX** and water using a stiff brush.

- apply a bonding slurry consisting of 1 part Ecofix diluted in 1 to 3 parts water by volume, and mixed with cement and sand in the proportion 1 part cement to 0 to 3 parts sand by volume in order to obtain a liquid paste.



SPRL

ETS CHIMIQUES CLOQUETTE

BVBA

Av. Georges Truffaut 57
B-4020 Liège BELGIUM

Tél. +32(0)4 362 42 61 Fax +32(0)4 362 05 24 <http://www.cloquette.be> E-mail : cloquette@cloquette.be

Brush in the grout obtained with a stiff brush.
Avoid treating excessively large surfaces at a time.

Consumption of **ECOFIX** for the slurry: 150 to 200 gr/m
Thickness of slurry: 2 to 3 mm.

- then, working fresh on fresh, i.e. within a maximum of 40 to 60 minutes of treating with the slurry, apply the **ECOFIX** mortar consisting of:

1 part cement + 2 to 3 parts sand by vol.
+ 1 part Ecofix in 2 to 4 parts water by vol.

Consumption of **ECOFIX**: 3 to 14% of weight of cement, depending on nature of work

Note: a mortar's setting time (both the start and end of setting) is prolonged by the addition of **ECOFIX**.

AGGREGATES

- For layers up to 1.5 cm thick, use 0 - 3 mm sand.
- For layers more than 1.5 cm thick, use 0 - 7 mm sand.

MIXING WATER

The mix of Water + **ECOFIX** should be such as to ensure that the mortar remains fairly consistent and plastic, i.e.:
Water = approx. 0.4

Cement

Note: for a 'soft' mortar: Water = approx. 0.5
Cement

SUBSEQUENT TREATMENT

Protect surfaces from direct sunshine and draughts (e.g. by using plastic sheeting). In warm weather, moisten or spray on CuroI SiT curing compound.

If the mortar dries out too quickly, the surface may be subject to hairline cracks or crumbling.

FINAL WAITING TIME

Recommended time: 7 to 10 days before subjecting treated surfaces to mechanical stress.

If you want to reduce this time to 3 - 4 days, **MULTISPEED** setting and hardening accelerator can be added to the mix of **ECOFIX** + water (contact us for advice).

Example: 4 l **MULTISPEED** + 4 l **ECOFIX**+ 12 l Water per 50 kg bag of P40 or P50 cement.
Working time (= until start of setting) approx. 90 min.



COMPOSITION OF MORTAR AND CONSUMPTION OF ECOFIX

Thickness of mortar layer in cm	Proportion of cement: sand (by weight)	Thinning by volume Ecofix/water	Percentage of Ecofix in cement, by weight	Consumption of ECOFIX
Wash	-	1: 2 to 4 l	-	Approx. 0.1 to 0.2 kg/m ²
Slurry	1:0 - 3	1: 1 to 3 l	-	Approx. 0.16 to 0.2 kg/m ²
0-1	1: 2	1: 2, i.e. 7 l Ecofix + 13 l water per 60 kg cement	14.9%	Approx. 0.8 kg/m ² /cm
2-3	1: 2.6	1: 3, i.e. 6 l Ecofix + 16 l water per 60 kg cement	10.9%	Approx. 0.66 kg/m ² /cm
Over 2 cm	1: 3	1: 4, i.e. 4 l Ecofix + 16 l water per 60 kg cement	8%	Approx. 0.4 kg/m ² /cm
Very thick layers, approx. 6-12 cm	1: 4	1: 7, i.e. 2.6 l Ecofix + 17.6 l water per 60 kg cement	6%	Approx. 0.2 kg/m ² /cm

PACKAGING AND STORAGE

- 5 kg tub
- 11 kg tub
- 33 kg tub
- 200 kg barrel
- 100 kg cubitainer

Storage: protect from freezing or excessive heat (30°C).

This technical notice is the outcome of research and long experience. However, we accept no liability for its contents, as successful use of the product depends on taking account of all the circumstances at the time of use. We recommend the performance of preliminary tests in order to see whether the product is suited to the planned application. UPDATE 06/1999



SPRL

ETS CHIMIQUES CLOQUETTE

BVBA

Av. Georges Truffaut 57
B-4020 Liège BELGIUM

Tél. +32(0)4 362 42 61 Fax +32(0)4 362 05 24 <http://www.cloquette.be> E-mail : cloquette@cloquette.be