

MARFIL®

QUICK SETTING NATURAL HYDRAULIC CEMENT



- ✓ ***NATURAL MINE-SURCED CEMENT***
- ✓ ***VERY QUICK SETTING OR ADJUSTABLE***
- ✓ ***WITHOUT CHEMICAL ADDITIVES***
- ✓ ***WITHOUT SHRINKAGE***
- ✓ ***EXCELLENT ADHESION AND PLASTICITY***



CEMENTOS COLLET
NATURAL HYDRAULIC CEMENT SINCE 1890

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DESCRIPTION

Is a hydraulic binder obtained by firing clay and limestone grinding of constant chemical composition and underground origin.

Controlled Hardening with MARFIL-CONTROL (Citric Acid E-330)

Possibility to delaying the onset of hardening cement to 15 min.

This natural cement is composed mainly of calcium silicate, calcium aluminate and together with other minority elements, calcium, magnesium, potassium sulphate and sodium sulphate.

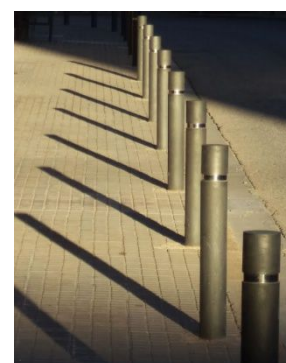
Due to the high resistance to the attack by sulfates, it has special conditions of durability and is not expansive.

APPLICATIONS

In masonry construction or interior and exterior repairs that require rapid setting and immediate application

ON QUICKLY MASONRY

- Construction of partitions and walls.
- Anchor bolts, frames, doors, gates...
- Placement of poles and signs in public road.
- Restoration of decorative elements.
- Repair and immediate tuning into circulation roads
- Construction of vaulted ceilings.



IN WATER PRESENCE

- Sealing and grouting pipes, tanks or wells.
- Logs of sewers and aggressive water or sewage pipes.
- All immersion works.



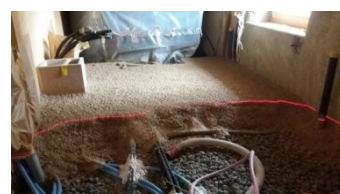
IN RESTORATION

- Grouting of stone walls
- Breaded walls, mixed with lime mortar.



IN ECO BUILDING

- For a mortar made with natural cement and organic fibers with or without lime mixture to lighten or insulate walls, ceilings and floors.



HOW TO USE

The support that will come into contact with the cement must be clean and free of dust, rust and SUFFICIENTLY WET to allow the total adhesion of the cement.

The more porosity the support has, the more adherence the cement.

IN PURE PASTE FORM

Pour 400 cc of water for each kg of cement and knead manually or with a mixer for a few seconds until a paste is obtained that is AS THICK AS POSSIBLE, NOT WATERY.

Without setting retardant MARFIL-CONTROL, the hardening happens very fast (from 1 to 3 minutes), if you want a more flexible application time you must dose the water with citric acid according to the attached table.

MAKING OF QUICK SETTING MORTAR

A quick setting mortar can be obtained by mixing the MARFIL cement with washed sand in proportion to the weight ratio cement/sand 1:1 or 1:2 and adding the dosage of MARFIL-CONTROL retardant to control the start of setting.

VERY IMPORTANT:

AN EXCESS OF WATER OR STIRRING THE PASTE MORE THAN NECESSARY CAN REDUCE THE FINAL RESISTANCE OF CEMENT AND AFTER A WHILE CAN CAUSE CRACKS.

OSERVATIONS

This cement contains SUFFICIENT GRANULOMETRY to be used in most masonry works without having to mix with sand, in a pure paste.

If making a mortar with this cement is desired, it must be respected the MAXIMUM DOSAGE OF CEMENT / SAND 1:1 BY VOLUME, to avoid a significant reduction of the final resistances.

When working with this cement without retardant, the application must be QUICK AND ALWAYS BEFORE you beginning of cement hardening because it CAN'T BE REMIXED.

We achieve the MAXIMUM GRIP AND RESISTANCE OF CEMENT making a good AGING KEEPING THE HUMIDITY of the work as long as possible.

When placing tiles with this cement you MUST BE VERY CAREFUL because the pieces should have ENOUGH MOISTURE.

The tiles should be kept in immersion. After some hours remove from the water and when they lose superficial moisture, can be placed.

An EXCESS OF bricks PREVENTS CEMENT ADHERENCE and the LACK OF MOISTURE can cause a CRACK BETWEEN CEMENT AND TILES.

It is NOT recommended to work with cement with NEGATIVE TEMPERATURES, but if necessary HEAT SLIGHTLY THE WATER to assist with the cement hardening.

When working with HIGH TEMPERATURES AND FULL SUNLIGHT it 's necessary to protect the work area during same days with soaked textiles to allow a GOOD CEMENT CURING.

PHYSICAL CHARACTERISTICS

Natural Mine cement "Marfil" meets with the European standard not harmonized UNE 80309-2006. Document under Ref. 19/19206-0740. Available on quality section of www.cementoscollet.com PRODUCTS / QUICK SETTING NATURAL MINE-SOURCED CEMENT / DOCUMENTS / QUALITY SHEET 2019

- Start of hardening without retarder: Between 1 y 4 minutes
- With retarder (Citric Acid E330): Up to 15 minutes

- Ratio water/Cement : 400cc/kg.cement
- Application temperature: 0°C a 30°C
- Reaction to fire: Euroclase A1
- Container: Bag of 20 kg./Bag of 5 kg.
- Storage: 24 months in closed container and without humidity.

RATIO "MARFIL CONTROL" / LITER OF WATER

START OF HARDENING	TEMPERATURE IN		DOSING OF MARFIL-CONTROL	
	WATER	AMBIENT	BOTTLE OF 250 or 1 kg.	JUG OF 5 kg.
8' to 12'	10 °C	6 a 12°C	1 stopper x lt./Water	1 stopper x 5 lt./ Water
10' to 12' min.	20 °C	24 a 25°C	2 stopper x lt./Water	2 stopper x 5 lt./Water
12' to 15' min.	20 °C	24 a 25°C	3 stopper x lt./Water	3 stopper x 5 lt./Water

COMPRESSIVE STRENGTH TO PURE PASTRY

TIME	MINIUM VALUE ACCORDING TO STANDARD UNE 80309/2006	OBTAINED VALUES IN LABORATORY TEST <small>Tests performed without the addition of sand and with a ratio of water / cement of 0,40</small>
1 Hour	1,0 N/mm2	6,8 N/mm2
7 Days	5,2 N/mm2	19,3 N/mm2
28 Days	8,0 N/mm2	22,5 N/mm2

COMPRESSIVE STRENGTH WITH THE ADICTION OF SAND

TIME	MORTER 1:1 Ratio water/cement 0,40
1 Hour	6,0 N/mm2
7 Days	18,2 N/mm2
28 Days	21,0 N/mm2

HAZARDS IDENTIFICATION

- According to Regulation CE 1272/2008:



H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

- According to the Directive 1999/45/CE:



R36/37/38 Irritating to eyes and respiratory tract.
R41 Risk of serious damage to eyes.
R43 May cause sensitization by skin contact.

Xi Irritating

S2 Keep out of the reach of children

S22 Do not breathe dust.

S24/25 Avoid contact with skin and eyes

S26 In case of contact with the eyes wash off immediately thoroughly with water and get immediate medical attention

S36/37/39 Use protective globes, goggles and face protective

S46 In case of ingestion, get immediate medical attention and show the label

Additional information: Natural cement does not contain Cr VI