



**APPLICATION SHEET**  
**Temporary cofferdam,  
water retaining barrier**

Build a **temporary cofferdam** or water retention barrier quickly to carry out downstream maintenance **work safely** in dry conditions. **Flexible concrete block** assembly, waterproofed with **PROMPT natural cement**, adapts to the geometry of the structure.



**IMPLEMENTATION**

**Equipment** \_\_\_\_\_

- Bucket or mixing tub
- Float
- Trowel
- Chalk line
- Concrete mixer

**Materials** \_\_\_\_\_

- Concrete blocks
- Sand
- PROMPT natural cement (CNP)
- TEMPO (retarder)

**Consumption** \_\_\_\_\_

*(per cm of thickness per m<sup>2</sup>)*

- Pure paste:  
5.5 kg CNP for 5 L placed
- Mortar:  
approx. 7 L sand for 7 L CNP




\*1 l = 1 kg of CNP

**ADVANTAGES OF  
PROMPT NATURAL  
CEMENT**

- Fast installation and dismantling
- Cost-effective solution
- Applicable under strong water flow
- Multi-use: pure paste, mortar, concrete

## IMPLEMENTATION

## Dosage

	<b>PROMPT Natural Cement</b>	 Sand	 TEMPO	 Water	Volume of fresh mortar
Pure paste	3 V	-	-	1 V	-
Mortar	25 kg	3 x 10-litre buckets	1 to 2 bottles (depending on the temperature)	Approx. 1 bucket of water (depending on the moisture content of the sand)	Approx. 42 l

## Setting time of PROMPT natural cement

Mortar temperature	10° C	20° C	30° C
Pure paste	4-5 min	2-4 min	1-2 min
Mortar without TEMPO*	4 min	2 min	1 min
Mortar with TEMPO*	50 min	25 min	15 min

\* À titre indicatif

## IMPLEMENTATION RECOMMENDATIONS

- Do not remix after initial set
- Avoid excess water
- In cold weather : minimum application temperature 2°C (non-frozen substrate, no frost risk)
- In hot weather: avoid mixing above 30°C

## Substrate preparation

1. Clean and remove mud
2. Wet dry substrate
3. Use a chalk line to mark out the exact position of the cofferdam in two parallel lines (to allow for the thickness)

Work phases / conditions	Underwater with a stream	Underwater without a stream	Above water
Sealing the first row of concrete blocks	Pure paste	Pure paste	Mortar with TEMPO
Laying the rows of blocks	Pure paste	Mortar with TEMPO	Mortar with TEMPO
Waterproofing render	Mortar with TEMPO	Mortar with TEMPO	Mortar with TEMPO

**PREPARATION OF PURE PASTE**

(Note: for underwater application, especially in strong currents)

- Prepare the required quantity per batch (generally between 1 and 5 liters of CNP)

- Mix manually, quickly and vigorously in less than one minute, with one-third of its volume in water, to obtain a mastic consistency paste

**Note:** Using PROMPT natural cement in neat paste is essential. Its very fast setting allows application underwater without washout or excessive water absorption, which would affect strength development. Once applied, this paste ensures good durability for temporary works, as curing occurs underwater.

**TIPS**

Install the mixing station in the basin or as close as possible.  
If possible, store PROMPT natural cement bags and sand protected from sunlight.

**Mortar preparation for underwater application**

- Prepare the required quantity per batch (generally 1 to 2 liters of CNP for 1 to 2 liters of sand)
- Mix quickly and vigorously in less than one minute and adjust water dosage to obtain a plastic consistency

**Mortar preparation for dry application**

- Introduce 8 liters of water into the mixer
- Add 1 or 2 bottles of TEMPO depending on temperature
- Add 2 buckets of sand, then one 25 kg bag of PROMPT natural cement, then the third bucket of sand
- Adjust workability (plastic consistency) by lightly wetting the bottom of the mixer with a water spray
- Mix until a homogeneous plastic consistency is obtained (approx. 5 minutes)
- Empty the entire batch into a wheelbarrow
- Add again 8 liters of water to clean the mixer before setting, and keep this water
- Start a new batch from step 2

## INSTALLATION

### Placement of pure paste and mortar (with or without retarder)

- Sealing first row:  
Place blocks on a bed of paste applied with a trowel
- Building successive rows:  
Place blocks on a layer of paste applied with a trowel
- Vertical joints:  
Fill joints ensuring they are staggered between rows
- Scrape off excess mortar from joints
- Check and adjust alignment and plumbness

### Placement of mortar without TEMPO

- Sealing first row:  
Place blocks on a bed of paste applied with a trowel
- Building successive rows:  
Place blocks on a layer of paste applied with a trowel
- Vertical joints:  
Fill joints ensuring they are staggered between rows
- Scrape excess mortar from joints
- Apply waterproof coating in a single layer of 1.5 to 2 cm thickness
- Smooth with a float

### DO NOT FORGET PPE

Wear appropriate protective equipment. Contact between skin and cement paste, concrete or fresh mortar may cause: irritation, allergic reactions, burns.

