



# NATCEM TANK

## Description

NATCEM TANK is a fast setting and fast curing mortar with a rapid strength gain that is resistant to chloride penetration, consisting of a blend of Potable Water Approved Cement Binder, specially selected dried graded aggregates all passing a 2mm sieve and retarders.

## Uses

- Waterproof renders
- Work in and around sewers
- Work in food factories
- Work in and around the sea
- Animal sheds and silage pits
- Garage pits
- Basement tanking
- Farm yards and cess pits
- Pipe joints and benching
- Sealing garage pits
- Work wherever pollution or chemical attack is likely
- Overhead and horizontally
- Fine moulding.

## Properties

- Fast setting
- Excellent adhesion
- Low shrinkage
- Low modulus of elasticity makes it very effective on poor or friable substrates
- Excellent resistance to pure water and sulphated water
- Excellent resistance to aggressive chemicals
- Very good cohesion and mixing
- Fine compact surface
- No curing necessary. It can be coated, covered or painted as soon as setting is complete
- Can be used in wet conditions
- Can be used under water
- Low carbon dioxide permeability
- Low water permeability.

**NATCEM TANK is a fast curing mortar that is resistant to chloride penetration, consisting of a blend of Potable Water Approved Cement Binder, specially selected dried graded aggregates all passing a 2mm sieve and retarders.**

### Setting times

NATCEM TANK is designed to commence setting at 55 minutes and finish setting at 60 mins at 20°C. In winter NATCEM TANK can be used down to 0°C. The set will be slower but can be accelerated by using warm water. In very hot temperatures the set will be faster and can be slowed by using cold water.

### Yield

Generally 1 x 25kg bag of NATCEM TANK mixed with 3.6 litres of water will produce 10 litres of finished mortar.

### How to specify

NATCEM TANK shall be mixed and applied to prepared surfaces all strictly in accordance with the manufacturers instructions.

### Precautions

We strongly recommend the use of GLOVES, GOGGLES and MASK. Full details are given on a separate sheet.

### Cleaning

Clean all tools with water immediately after use.

### Storage

NATCEM TANK is packaged in a polythene inner bag with a re-sealable tie within a stitch sealed woven polypropylene outer bag that should be stored in dry conditions and will last for at least twelve months.

### Setting time & strength gain

|   |                            |
|---|----------------------------|
| Start Set                                 | at 20°C                    |
| End Set                                   | at 20°C                    |
|   | Compressive Strength (Mpa) |
| 1 Hour                                    | 5                          |
| 3 Hours                                   | 11                         |
| 24 Hours                                  | 17                         |
| 7 Days                                    | 19                         |
| 28 Days                                   | 26                         |
| Strength continues to develop thereafter. |                            |

Conforms with the requirements of EN1504-3 CLASS R4



# NATCEM TANK

## Method of use

### Preparing the surface

Do not use on frozen or over heated substrates (Outside the range of 0°C-30°C). Prepare the surface in advance to provide an adequate key. On glazed brickwork the joints should be raked out and the surface bush hammered to form a key. The surface to which the NATCEM TANK is applied should be clean, free from dust and thoroughly dampened. Where necessary steel or aluminium mesh can be used. Ensure that a 10mm minimum thickness of material is obtained.

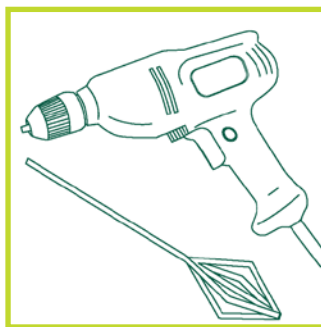
### Priming

There is no need to prime any reinforcement, but if priming is preferred, any conventional system may be used.

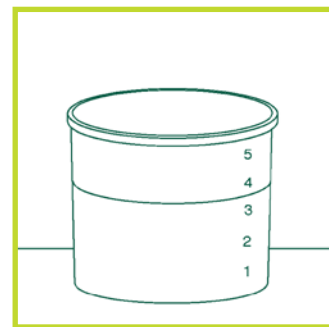
### Mixing

For optimum results, mix using conventional mixing machines. Always place the water in the mixer or mixing container and add the powder. Gradually add the NATCEM TANK to no more than 3.6 litres of clean water per bag whilst continuously mixing the material. If one bag or less is to be used the NATCEM TANK can be mixed with a rose bud type paddle attached to an electric drill (900rpm, 1000w). Mix vigorously for at least 2 minutes after adding all the mixture to the water.

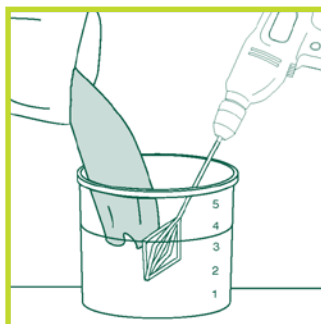
### One bag



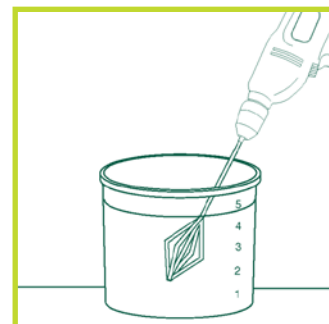
Rose bud paddle in electric drill 900rpm 1000w.



Place 3.6 litres of water into a container.



Add the NATCEM TANK to water mixing all the time.



After the NATCEM TANK has been added mix for at least 2 minutes.

NATCEM TANK is designed to give a fluid mix but this only develops after sufficient mixing.

The mix will appear dry at first.

Continue mixing until fluidity develops. If greater fluidity is required, more water up to a total of 4 litres may be used. Exceeding this ratio will lead to lower strength, longer setting time and the risk of surface cracking appearing. In cold weather the set can be accelerated using warm water, likewise in hot weather cold water can be used to slow down the set.

## Application

### General

After mixing, apply the material as quickly as possible after mixing using traditional tools. A 10mm minimum thickness of the material is always necessary. Do not apply additional water to the surface during finishing as this may cause surface cracking. Once setting has started DO NOT attempt to remix or to smooth the surface. This will cause the mechanical properties, in particular strength and adhesion to be lost.

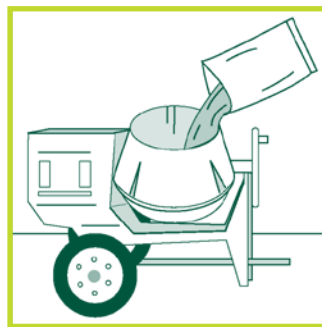
### Tanking

Prepare the walls and floor which are to be treated by removing all paint and surface coatings. Cut a chase a minimum of 10mm deep by 10mm wide at all internal angles of the wall to wall and wall to floor joints, then fill with NATCEM TANK as the work proceeds. Form fixing points by cutting out an area at least three times the diameter and one and a half the length of the fixing, filling with the NATCEM TANK as work proceeds but clearly marking the position. Well dampen the surface with water but ensuring no standing water. Mix the NATCEM TANK, well dampen the surface again with water, carry out the rendering of the walls using standard and accepted techniques ensuring at all times a minimum thickness of 10mm. Protect against direct sunlight or wind until the setting has completed. Once the NATCEM TANK has set, allow at least 1 hour before applying any surface coatings or covering to the walls or to the floors.

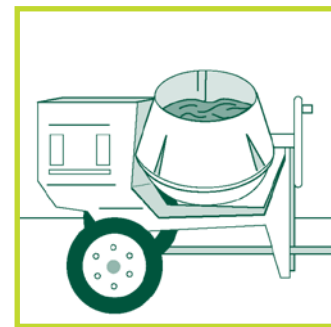
### More than one bag



Add water to the mixer at a ratio of 3.6 litres per bag of NATCEM TANK.



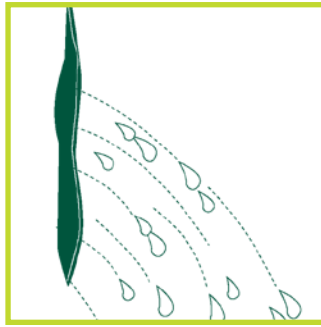
Gradually add the NATCEM TANK to the mixer.



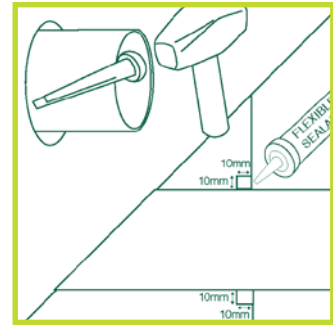
After adding all the NATCEM TANK mix continuously for at least 2 minutes at medium speed.



Prepare surface, remove paint, coatings, renders and plaster.



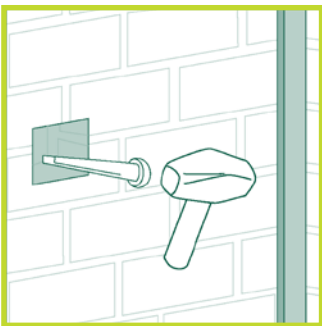
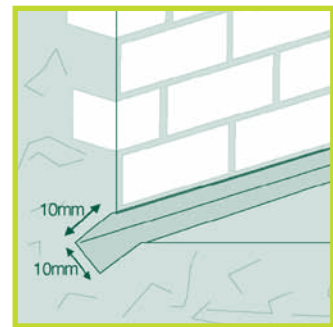
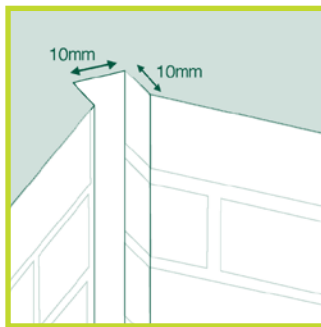
Stop any running water with NATCEM Waterstop. (See separate leaflet)



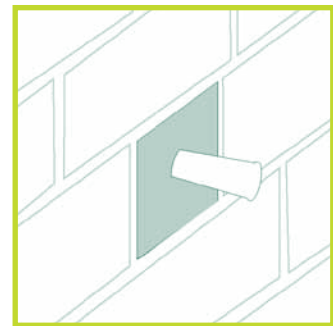
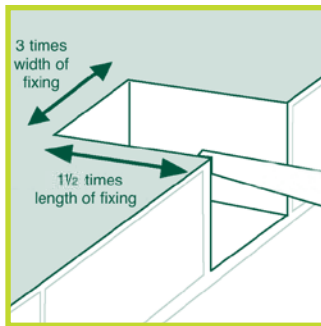
Cut a rebate around any pipe or cable and fill with sealant to form flexible seal around pipe or cable.



Form chase at wall to floor and all internal wall angles minimum 10mm x 10mm.



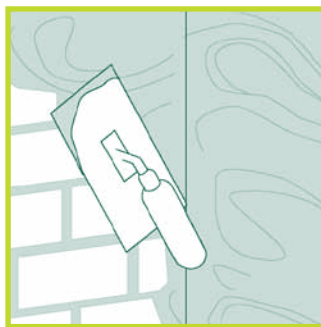
Cut out for fixing point.



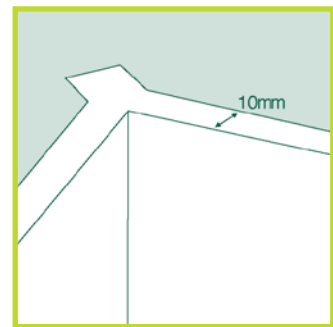
Fill fixing points and clearly mark.



Well dampen surface with water ensuring no standing water.



Apply material to wall.



Ensure at all times a 10mm minimum thickness.



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15 Fountain Parade, Mapplewell, Barnsley, South Yorkshire S75 6FW  
**e.** [enquiries@naturalcement.co.uk](mailto:enquiries@naturalcement.co.uk) **t.** 01226 381133 **f.** 01226 381177  
**[www.naturalcement.co.uk](http://www.naturalcement.co.uk)**