



NATCEM AC

Description

NATCEM AC is a blend of potable water approved natural cement based binder, specially dried and graded aggregates and food grade retarders. NATCEM AC is designed for a thickness application from 3mm up to 20mm to produce a fair-faced finish to concrete or masonry surfaces.

Uses

- Anti-carbonation coating
- Concrete repair
- Infill surface imperfection
- Void filling.

Properties

- Easy to use
- Wide range of application thicknesses
- Low permeability provides protection against carbon dioxide and water-borne chlorides
- Excellent adhesion
- Low shrinkage
- Can be applied in wet and cold weather
- No curing necessary
- Set down to zero
- Can be used in contact with potable water
- Can be used underwater.



NATCEM AC

Method of use

Preparing the surface

Do not use on frozen or overheated substrates (Outside the range of 0°C-30°C). Prepare the surface in advance to provide an adequate key. It should be clean, free from dust and thoroughly dampened. Where necessary steel or aluminium mesh can be used. Ensure that a 3mm 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. Add the NATCEM AC gradually to no more than 5 litres of clean water per bag, whilst mixing continuously. If one bag or less is to be used it 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. NATCEM AC 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 5.5 litres may be used. Exceeding this ratio will lead to lower strength, a longer setting time and the risk of surface cracking. 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

Place the material as quickly as possible after mixing using traditional tools. A 3mm 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.

Setting times

NATCEM AC is designed to commence setting at 35 minutes and finish setting at 40 minutes at 20°C. In winter NATCEM AC 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.

Cleaning

NATCEM AC should be removed from tools and equipment with water immediately after use.

Setting time & strength gain

Start Set	35 Min	at 20°C
End Set	40 Min	at 20°C
		Compressive Strength (Mpa)
1 Hour		4
3 Hours		5
24 Hours		9
7 Days		13
28 Days		32
Strength continues to develop thereafter.		

Storage

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

Yield

Generally 1 x 25kg bag of NATCEM AC mixed with 5 litres of water will produce approximately 10 litres of finish mortar.

How to specify

NATCEM AC shall be mixed and applied to prepared surfaces all strictly in accordance with the manufacturer's instructions.

Precautions

We strongly recommend the use of GLOVES, GOGGLES and MASK. Please see MSDS sheet for full details.

Approved for use in public water supplies.
Secretary of state for D.E.T.R. Approved.

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