

NATCEM® 35

Product Data Sheet



Description

NATCEM® 35 is an environmentally friendly, fast setting mortar with rapid strength gain, suitable for installation up to any thickness from a **minimum of 10mm**. The product consists of a blend of Natural Cement binder, retarder and specially selected graded aggregates all passing a 2mm sieve.

NATCEM® 35 is suitable for the following Applications:

- Concrete repairs
- Waterproof renders
- Floor screeds & repairs
- Grouting / void filling
- In contact with potable drinking water
- Sewers / Wastewater environments
- Marine & Coastal applications
- Swimming pools
- Suitable for use underwater
- Pointing
- Use in rivers & canals
- Environmentally sensitive areas
- Conservation of historic buildings
- General repairs and construction

Properties

- Fast set with rapid strength gain
- Only requires the addition of water
- Sulphate resistant
- Resistant to chloride penetration
- High chemical resistance
- Waterproof
- Approved for use in Public Water Supplies
- Sets underwater
- Can be used down to 0°C
- Environmentally friendly
- Very low shrinkage
- High compressive strength
- Fast cure, can be over-coated one hour after set

Yield & Coverage

Generally, 1 x 25kg bag of NATCEM® 35 mixed with 3.6 litres of water will produce **12.5 litres** of finished mortar. Each 25kg bag of NATCEM® 35 when mixed will cover approximately **1m²** at 10mm depth.

Setting Time & Strength Gain

Start Set End Set	35 Min 40 Min	at 20° at 20°
	Flexible Strength (Mpa)	Compressive Strength (Mpa)
1 Hour	2.2	9
3 Hours	2.5	16
24 Hours	3	21
7 Days	5.9	45
28 Days	7.5	56
Strength continues to develop thereafter.		

Setting Times

NATCEM® 35 is designed to **commence setting at 35 minutes and finish setting at 40 minutes** at 20°C. In winter, NATCEM® 35 can be used down to 0°C. The set will be slower but can be accelerated by using warm water. In hot temperatures, the set will be faster and can be slowed by using cold water or NATCEM® SETTING RETARDER (see separate product data sheet).

Method of use

Preparation

Do not use on frozen or overheated substrates (0°C–30°C). Prepare the surface in advance, ensuring it is well roughened to provide an adequate key. Any adhesion-reducing substances such as oil, paint, bitumen, grease or laitance must be removed by suitable means. On glazed brickwork, the joints should be raked out and the surface bush hammered to form a key. The surface to which the NATCEM® 35 is applied should be clean, free from dust and thoroughly dampened. Where necessary, steel or aluminium mesh can be used.

Mixing

Each bag of NATCEM® 35 should be mixed with between **3.6 and 4 litres of water**. 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® 35 to **3.6 litres** of clean water per bag whilst continuously mixing the material. If one bag or less is to be used, the NATCEM® 35 can be mixed with a Rose Bud type paddle attached to an electric drill (900 rpm, 1000w). Mix vigorously for at least 2 minutes after adding all the mixture to the water.

NATCEM® 35 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.

Priming

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

Placing

After mixing, apply the material as quickly as possible 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 the 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.

Precautions & Storage

We strongly recommend the use of GLOVES, GOGGLES and MASKS. Full details are provided in the Safety Data Sheet. Clean all tools with water immediately after use.

NATCEM® 35 is packaged in a polythene inner bag with a resealable tie within a stitch-sealed woven polypropylene outer bag that should be stored in dry conditions and will last for at least twelve months.

Coating

When applying a finishing plaster to the surface of NATCEM® 35, we recommend using Thistle Board Finish Plaster or Lime Plaster. **We DO NOT recommend using Multi-Finish Plaster.**

Approved for use in Public Water Supplies

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Scan to see Mixing Video:



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