

CEMPATCH S

High build, fibre reinforced, high strength cementitious repair mortar



TECHNICAL DATA SHEET PUBLISHED JULY 2021

PRODUCT FEATURES

Cempatch S is a one component polymer modified and fibre reinforced repair mortar. Cempatch S is a blend of dry powders, selected aggregates and fibres which when mixed with water produces a thixotropic mortar suitable for vertical and overhead application.

Cempatch S is designed for repair of all types of structural concrete where high strength and extremely low shrinkage properties are required.

MATERIALS SUPPLIED

20 kg or 25 kg polythene-lined paper sacks.

STORAGE

Protect from frost and store under dry warehouse conditions at a temperature between 5°C and 30°C.

SHELF LIFE

12 months in unopened bags and stored under good condition.

COVERAGE

A 20 kg sack using 3.5 – 4 litres of clean water will yield approx. 11.5 litres.

A 25 kg sack using 4.5 – 5 litres of clean water will yield approx. 14.5 litres.

A 20 kg sack of Cempatch S will cover approximately 0.6 m² at 20 mm thickness.

A 25 kg sack of Cempatch S will cover approximately 0.75 m² at 20 mm thickness.

APPLICATION INSTRUCTIONS

REPAIR PREPARATION

Substrates should be mechanically prepared by wire brush, hammering, grit-blasting, steam cleaning etc., to produce a clean, aggregate exposed finish, free from contaminants that may prevent adhesion.

Edges must be cut back to a minimum depth of 10mm surrounding the repair to allow the repair area to be 'toed-in'.

At joint detail it is recommended that the substrate be cut back to a depth of around 25mm. Feather edging is not recommended and should be avoided.

TECHNICAL INFORMATION

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|---|------------------------------|
| BS EN 1504-3 | Class R4 |
| Compressive strength (N/ mm ²) (BS EN 12190) | ≥ 45 |
| Adhesion strength* (N/ mm ²) (BS EN 1542) | ≥ 2.0 |
| Modulus of elasticity (N/ mm ²) (BS EN 12412) | ≥ 20000 |
| Thermal compatibility, Part 1, freezing / thawing (N/ mm ²) (BS EN 13587-1) | ≥ 2.0 |
| Depth of carbonation compared to control concrete MC (0.45) (BS EN 13295) | average value: 5.5 mm (Pass) |
| Chloride ion content (BS EN 1015-17) | ≤ 0.05% |
| Minimum application temperature | 5°C |

* When using Cempatch Primer contact primer.

Any exposed steel should be completely uncovered and abraded to a bright finish (SA 2½) after removing any rust scale or corrosion products. Where corrosion has occurred due to chloride attack the steel should be high pressure washed and grit blasted.

The temperature of the repair area must be maintained above 5°C throughout the application and drying of Cempatch S.

PRIMING

All cleaned areas of the reinforcement should be treated with 1 - 2 coats of Repcoat ZR2 - zinc-enriched epoxy coating. The areas to be restored with Cempatch S must be soaked with clean water before application. Excess water must be removed. Apply 1 coat of Cempatch Primer. Cempatch Primer must still be tacky when laying on top of Cempatch S.

MIXING

Cempatch S should be mixed using a forced action mixer such as a Crete angle, or a mechanically powered mixer or drill fitted with suitable paddle should be used. Slowly add the contents of a 20 kg sack to 3.5 - 4.0 litres of clean potable water depending on consistency required (for the 25 kg sack, 4.5 – 5 litres of water are needed). Mix for approximately 3-5 minutes, until the mixture is homogeneous.

APPLICATION

Cempatch S can be applied by trowel or hand. The mixed mortar should be applied using firm pressure to fully compact the mortar to ensure good adhesion with the steel reinforcements and the substrate. Finishing and leveling should be carried out initially by wooden or plastic float. Final finishing should be carried out using steel float.

CLEANING

Wash tools with water immediately after use.

CURING

Once Cempatch S has achieved final set (after approximately 30 minutes) use appropriate curing methods such as Setseal 6 curing membrane or polythene sheeting.

PRECAUTIONS

Do not place when the substrate temperature is below 5°C or when the ambient temperature is 10°C and falling.

Protect from frost

Do not exceed the maximum recommended water content per sack and only use clean potable water.

HEALTH & SAFETY

Cempatch S contains cement, which is alkaline and may cause skin irritation. Please refer to the relevant Health and Safety Data Sheet for detailed information.

GENERAL GUIDANCE

This data sheet is for general guidance purposes only and may contain information that is inappropriate for certain conditions of use. Accordingly, all recommendations and suggestions are made without guarantee. Further information is available from our Technical Services Department.

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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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