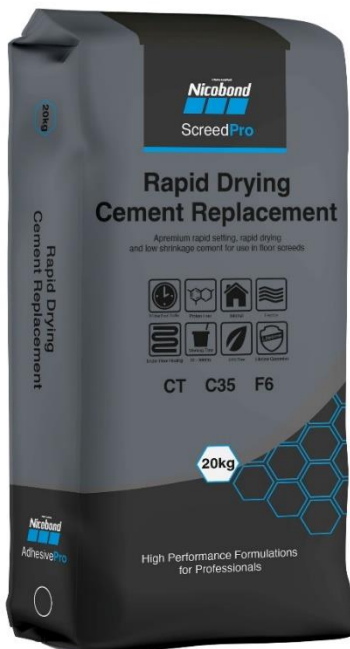


## ScreedPro Rapid Drying Cement Replacement (formally known as Cement Mix)

- Replaces Portland cement component in a sand: cement screed
- Just add the required amount of sharp sand (0 to 8mm)
- Vary mix ratios to achieve different strengths as required
- Fast-track screed binder that facilitates early installation of floor finishes
- Rapid Setting and Drying
- Walkable in 3 hours
- Can receive Ceramic Tiles direct in 3 hours at 20°C
- Ready to receive smoothing compounds after 24 hours regardless of depth
- Resilient Floorcoverings/LVT's bonded after 24 hours at 20°C
- Can be used to create bonded, unbonded, floating and heated Protein Free
- Suitable for internal and external installations
- Shrinkage controlled
- Suitable for pumped applications
- Will pass the BRE In-Situ Crush Resistance test within 24 hours
- Designed to achieve the minimum required N/mm<sup>2</sup> strength within 24 hours that is comparable to traditional cement-mixed screeds at 28 days
- Higher compressive strength at lesser depths than traditional sand/cement screeds



### EN 13813:2002 Test Methods

EN 13892-2	Determination of flexural and compressive strength after 28 days
Compressive Strength at 28 days	> 38.0 N/mm <sup>2</sup> (BS EN 13892-2) (1:5.5)
Flexural Strength at 28 days	> 9.0 N/mm <sup>2</sup> (BS EN 13892-2) (1:5.5)

### Application Data

COLOUR	Grey
MIXING RATIO	To achieve a C50 F10 (1:4) mix 0.4kg/m <sup>2</sup> /mm powder to 1.6kg /m <sup>2</sup> /mm Sand/aggregate 0 to 8mm. For C38 F9 (1:5.5), mix 0.31kg/m <sup>2</sup> /mm powder to 1.69kg/m <sup>2</sup> /mm sand/aggregate and for a C25 F6 (1:7) mix 0.25kg/m <sup>2</sup> /mm to 1.75kg/m <sup>2</sup> /mm sand/aggregate. The amount of water required will vary with the grading of the sand/aggregate and moisture content but typically a 20kg bag will require 6 to 8 litres of water. Check the workability of the screed using the 'snowball test' by squeezing a handful of screed mix with a gloved hand. The right workability is when the screed forms a moist ball on releasing the hold and does not crumble (too dry) or drip water (too wet).
MIXING	Place the required clean water into a Nicobond mixing bucket or another ridged sided vessel. Steadily pour in the powder and aggregate, then mechanically mix until a lump free semi dry mortar is achieved. Use immediately.
CONSISTENCY OF MIX	Semi dry screed mortar consistency
BED THICKNESS	Bonded 15-100mm depth Floating from 65mm Domestic, 75mm Commercial Unbonded from 40mm
APPROXIMATE COVERAGE PER 20KG BAG	At 15mm thick 3.33m <sup>2</sup> / per 100m <sup>2</sup> 30 bags/ 2.4T aggregate. At 40mm thick 1.25m <sup>2</sup> / per 100m <sup>2</sup> 80 bags/6.4T aggregate. For 75mm thick 0.66m <sup>2</sup> per 100m <sup>2</sup> 152 bags/ 12.16T aggregate.
POT LIFE	Approximately 20-45 minutes at 20°C (Dependant on mix ratio)
SETTING TIME	Fix tiles in 3 hours, resilient floor coverings in 24 hours at 20°C
READY FOR LIGHT FOOT TRAFFIC	3 hours
INSTALLATION TEMPERATURE	Minimum 5°C max 30°C
SHELF LIFE	At least 12 months from date of packing when kept clear of the ground and stored under dry conditions in unopened packaging. Protect from frost.
PACKAGING	20kg poly lined paper sack.

# ScreedPro Rapid Drying Cement Replacement (formally known as Cement Mix)

## BRITISH STANDARD GUIDELINES:

All aspects of any installation of the Nicobond range of products must be carried out in compliance with the directives of the relevant British Standard requirements of BS8203, (Installation of Resilient Floorcoverings), BS 8204, (Screeds, Bases and In-situ flooring), BS5325 (Installation of Textile Floorcoverings) and BS5385 codes of practice for floor tiling. With reference also to the Contract Flooring Association Guide to Contract Flooring, and The Tile Association guidelines. Latest NHBC guidance must also be followed where applicable. Complies with EN standards and supplementary specifications.

## DESCRIPTION:

Nicobond ScreedPro Rapid Drying Cement Replacement is a technologically advanced, fast-track, high performance, rapid-setting and drying screed binder that when mixed with 0 – 8mm sharp screeding sand and the appropriate measure of water produces a screed that facilitates the early installation of floorcoverings for most installations regardless of placement depth. ScreedPro Rapid Drying Cement Replacement is suitable for internal and external applications but should not be used as a wearing layer and should be covered with a suitable smoothing compound and/or a recognised floor covering to protect damage or ingress of contamination and moisture which could prove detrimental to the products performance.

## USES:

ScreedPro Rapid Drying Cement Replacement can be used in most commercial and domestic installations and being protein-free is ideal for use in factories, garages, schools, retail environments, residential and care homes, and biologically sensitive areas such as Hospital theatres. ScreedPro Rapid Drying Cement Replacement is designed for use in bonded, unbonded, floating and heated screeds and areas where standing water may be in evidence, such as swimming pools and changing /shower areas.

## INSTALLATION THICKNESS:

The use of a binder in preference to a traditional sand: cement screed gives advantages in many ways not just speed of placement and application of subsequent floor finishes, but cost-wise as the depths required are lesser due to the increased performance characteristics:

Screed Definition	Sand: Cement ratio	Fast Track (Minimum)
Bonded	40mm	15mm
Unbonded	50mm	40mm
Floating	65mm	65mm Domestic 75mm Commercial



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NB: For heated screed, the minimum coverage permissible above the water pipes is 25mm of ScreedPro Rapid Drying Cement Replacement.

## SUBSTRATE PREPARATION:

### BONDED SCREEDS:

When receiving a bonded screed, any new concrete subfloor must be at least 6 weeks old, thus allowing for the initial drying shrinkage to have occurred prior to the application of the screed. The concrete surface must be prepared using the appropriate mechanical equipment to expose the coarse aggregate and be free from all contamination or debris liable to impair adhesion. Note: certain waterproofing additives such as "Caltite" are very non-porous will require the use of an epoxy resin slurry bonding coat prior to the application of a bonded screed. If in any doubt, contact the Nicobond Technical Services for advice. The structural concrete base must be tested for moisture as per BS8203/4 and  $\geq 75\%$  then a 2-coat application of Nicobond DPM One Coat Membrane and Primer with the 2nd coat of DPM and Primer broadcast with Nicobond ScreedPro Sand NR5 kiln-dried aggregate. as per the relevant Technical Data Sheet. Once dry, all loose aggregate can be swept and vacuumed away, and the ScreedPro Rapid Drying Cement Replacement applied to levels.

### UNBONDED SCREEDS:

The concrete sub-base must have an effective base damp proof membrane. It should be prepared, swept and vacuumed to ensure removal of any sharp matter that could penetrate the damp proof/slip membrane. If the floor is uneven or has sharp protrusions or hollows it should be pre-smoothed. Before the application of a levelling compound the concrete must be free from all contamination that may impair adhesion. If pre-smoothing is deemed necessary, level the floor using Nicobond ScreedPro Fibre Flex or Rapid Latex Fibre No Ammonia and allow a minimum of 12 hours drying. For unbonded screeds, a suitable moisture barrier such as a Visqueen or similar product should be installed to the surface of the concrete structural slab as per the manufacturer's instructions prior to the placement of the ScreedPro Rapid Drying Cement Replacement. Alternatively, dependent on the age of the concrete slab, and the Relative Humidity, Nicobond DPM One Coat Damp Proof Membrane and Primer or Moisture Vapour Suppressant (MVS) can be applied subject to the Technical Data Sheets and instructions within. Care must be taken not to damage the membrane during the installation of any products placed above it.

### FLOATING SCREEDS:

For the installation of a floating screed, the preparation is as per the instructions for an unbonded screed. A separating membrane can be installed above the insulation prior to applying the ScreedPro Rapid Drying Cement Replacement. Particular attention should be paid to the specified performance criteria of the insulation boards ensuring that they are appropriate for the end use and that they have been installed to the manufacturer's instructions.

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# ScreedPro Rapid Drying Cement Replacement (formally known as Cement Mix)

## HEATED SCREEDS:

The method for heated screeds can vary dependent on the type of UFH system that is to be installed. If applied to insulation the process is as per the instructions for floating screeds. For systems that are laid on to trays or mats the manufacturers Technical Data Sheets should be consulted. Where underfloor heating pipes are installed, these must have a minimum of 25mm coverage of ScreedPro Rapid Drying Cement Replacement below the screed surface. Reinforcement mesh should be placed directly above the pipes.

The heating system must be commissioned to the manufacturer's instructions prior to applying the ScreedPro Rapid Drying Cement Replacement. If the system is found to be working correctly with no leaks or loss of pressure, it must be shut down 48 hours prior to the commencement of the installation and must remain switched off during the application of ScreedPro Rapid Drying Cement Replacement. The system must remain switched off after completion for a further 48 hours and then re-introduced to 5°C and increased by 5°C daily up to the operating temperature, which currently to comply with BS EN1264-2 is at maximum surface temperature of 27°C and 55°C water temperature, subject to individual manufacturer's instructions and Technical Data Sheets.

## PREPARING THE AREA FOR LAYING SCREEDPRO RAPID DRYING CEMENT REPLACEMENT:

Once the area is free of any contamination, dust and debris, the perimeter and all columns, services and abutments should be addressed with a 1 cm thickness of a suitable flexible material. Felt board, polystyrene or cork are all suitable.

## MIXING PROPORTIONS AND AGGREGATE REQUIREMENTS:

Nicobond ScreedPro Rapid Drying Cement Replacement is mixed and applied in the same manner as traditional cement-based screeds however the working time will be greatly reduced between approximately 20- and 45-minutes dependent on air temperature and humidity. Reference should be made to the current BS EN standards regarding the suitability of sands for screeding and should the sand not contain the appropriate amount of coarse fraction then a nominal 6mm aggregate can be mixed with the sand. Screeding sand should be of good quality and must comply with BS8204-1/A1 classification to BS EN 13139 standards and must be free of lime lignite and any other contaminants.

When the sand and aggregate is stored externally and is exposed to the weather, it is advisable to check the moisture content of these materials prior to mixing as excessive moisture within the aggregate may lead to overwatering of a screed mix which can have a detrimental effect on the strength, weaken the surface and generally compromise the overall performance.



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## MIXING:

The ScreedPro Rapid Drying Cement Replacement and the sand and aggregate should be pre-blended prior to adding any water, for this it is imperative that the materials are mixed in a pan, trough or a 'forced action' mixer. Traditional 'free-fall' mixers are not suitable for mixing semi-dry screed mortars. Do not add any other cementitious material, lime or additives as this can affect the physical and technical characteristics of the screed.

The water requirement for dry blended aggregates, sand and ScreedPro Rapid Drying Cement Replacement will be approximately 6-8 litres of clean water per 20kg of ScreedPro Rapid Drying Cement Replacement. Do not under any circumstances exceed this amount as this may impair the rapid drying and strength development of the product. The mix should have a consistency that allows a sample, when squeezed by hand, to maintain its shape without crumbling or separating (commonly referred to as the "snowball test"). The hand should remain slightly moist from the contact with the mix.

## PLACEMENT:

Bay joints and day work joints should be constructed as vertical butt joints and tie or dowel bars inserted and/or a slurry bonding should be applied on the vertical joints to tie in the fresh screed with the existing. This exercise will control independent curling or lipping of the screed bay. Movement joints should be brought through to the surface of the floor coverings and all layers terminated at either side. These are likely to be placed in door thresholds and underfloor heating areas.

The use of steel mesh (D49 or D98 as per BS4483) is common practice in unbonded and floating screeds to control shrinkage and prevent cracking within the screed, the use of polypropylene fibres incorporated at the time of mixing can also be used to control these issues. Mesh can increase the risk of delamination when used with screed depths of below 50mm and is not necessary in bonded screeds. The working time of the fresh mixed ScreedPro Rapid Drying Cement Replacement, sand and aggregates at 20°C is approximately 45 minutes and should be placed immediately after adequate mixing (normally around 5 minutes per mix) on to a slurry coat (freshly applied), an epoxy or an aggregate blinded base for bonded screeds, or on to a separating layer for unbonded and floating screeds.

Mixing, application, compaction and trowelling-off must be carried out immediately and it is vital that the amount of screed mixed and the areas to be screeded are limited and compatible for the setting and curing window of the mixed screed.

**NB:** ScreedPro Rapid Drying Cement Replacement is not suitable as a final wearing surface or to directly receive floor paints and resin finishes.

Email: [technical@nicobond.com](mailto:technical@nicobond.com)

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# ScreedPro Rapid Drying Cement Replacement (formally known as Cement Mix)

## **CLEANING:**

Wash tools thoroughly with clean water immediately after application.

## **STORAGE:**

This product must be stored clear of the ground, under dry conditions, out of direct sunlight. Protect from frost. If allowed to freeze N&C Building Products cannot guarantee the performance of the product.

See Nicobond "Tiling Products: The Directory" or Nicobond "Flooring Systems the directory" for full details of our extensive range of tiling and flooring products and tiling solutions. Refer to the latest version of our Technical Data Sheets and Safety Data Sheets to ensure compatibility before use, these can be downloaded from our website

[www.ncnicobond.com](http://www.ncnicobond.com)

## **MANUFACTURERS WARRANTY:**

Nicobond products are covered by our lifetime warranty. Whilst we strive to ensure that any advice, recommendations, or information provided in our literature are accurate and up to date, we have no control over the conditions under which our products are used. It is therefore the responsibility of the end user to ensure that the product and its application are suitable for the intended purpose. No warranty is given, nor liability accepted, beyond the assurance that the product supplied will conform to our written specifications. End users must consult the latest version of the Technical Data Sheet and Safety Data Sheet prior to use, both of which are available from our website or upon request. We do not accept any liability for workmanship or any consequential loss or damage.

## **HEALTH AND SAFETY:**

Danger - Contains

Portland Cement Klinker; Hydrated Lime, Calcium dihydroxide, Calcium Hydrate, Calcium hydroxide; Citric acid

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Harmful to aquatic life with long lasting effects. Avoid breathing dust. Wash hands, forearms and face thoroughly after handling. Wear protective gloves, protective clothing, eye protection, face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor if you feel unwell. Specific treatment If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.



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