

## Marshalls Cemfloor

### CEMENT BASED PUMP-APPLIED, FREE-FLOWING FLOOR SCREED

Marshalls Cemfloor is made with a cement-based binder and specially formulated additives in conjunction with McGraths Limestone (Cong) Ltd. & Cemexa Technologies of France. It is pump applied due to its fluid consistency. This means that it is easier to lay, covering large surface areas in a day. It is also thinner than conventional screeds making it the natural choice for underfloor heating systems.

Marshalls Cemfloor screed is manufactured to the requirements of BS EN 13813 under a quality scheme certified to ISO 9001 and are regularly tested to the requirements of the latest British Standards. All our raw materials conform to British and European Standards to ensure quality and consistency. Floors are suitable for foot traffic within just 24-48 hours, whilst tiling can be undertaken as early as ten days after installation.

Marshalls Cemfloor is ideal for a wide range of screed applications. Its class leading thermal conductivity and minimum thickness make it ideal for use with underfloor heating.

### BENIFITS

Fast installation – Due to its self-compacting and fluid characteristics, large surface areas can be laid with Marshalls Cemfloor in just one day – up to 1,000m<sup>2</sup>. Since Marshalls Cemfloor is a cement based screed; fast-track tile adhesives can be used on the screed. In non-heated floors; tiles can be applied after 5-days using the correct adhesive once the screed has hardened adequately. In heated floors tiles can be applied once the heating system has been commissioned fully. For impermeable floor coverings the screed must be allowed to dry out to the required relative humidity as specified by the manufacturer of the floor covering.

High strength - Stronger than sand cement screed due to full compaction and no voids, Marshalls Cemfloor requires no reinforcement and no manual compaction.

Flexible choices -New build and renovation work. Unbonded, bonded or floating construction. Residential and commercial. With or without underfloor heating. Wet or dry areas. Can be left as the finished surface. Offers total flexibility. Mix designs available for all types of construction applications.

Minimal drying shrinkage (less than 0.05%) – Marshalls Cemfloor is less prone to shrinkage than sand cement screeds and therefore requires fewer construction joints. Typically bay sizes of up to 150m<sup>2</sup> without the need for construction joints.

Excellent Surface Finish – Surface regularity to minimum SR2 and capable of receiving floor Coverings such as tiles, wood carpet, vinyl and other toppings as listed in BS8203:2001. No sanding or other surface preparation required before applying floor finishes.

### WHY CHOOSE MARSHALLS CEMFLOOR?

It can be laid thinner than traditional screed solutions without detriment to its performance so any underfloor heating pipes are closer to the surface (minimum cover to pipes 25mm).

Suitable for tiling after ten days

Cemfloor can be laid as a floating construction over most types of rigid insulation board or acoustic foam at a minimum thickness of 35mm in domestic applications

It offers significant program benefits as large floor areas can be laid in one day.

Very low shrinkage values mean you need less construction joints than traditional cement based screeds.

It can receive foot traffic 24 hours after placing

It is installed by trained and competent contractors who have been trained to install the product correctly.

Excellent supply network with company trucks and drivers to provide high quality service. All material is wet batched to ensure product consistency.

### MARSHALLS CEMFLOOR VS TRADITIONAL SCREED SOLUTIONS

Does not require reinforcement

Does not curl

Doesn't need as many construction joints

You don't need to compact it

You don't need to lay it at 75mm thick

You can specify strength classes of 20Nmm<sup>2</sup> to 30Nmm<sup>2</sup>

It is batched and mixed off site under strict quality controlled conditions to BS.EN.13813.

It is delivered to site by truck mixer, ready-to-pump.

### THE CEMFLOOR PRODUCT RANGE

Cemfloor C20 F4

Cemfloor (Commercial) C25 F5

Cemfloor (High Strength) C30 F6

Note – C20 F4 is the standard product that will be supplied.

Higher strength versions available upon request.

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## CONSIDERATIONS IN USE

Marshalls Cemfloor can be used in all types of flooring application. The building should be weatherproof before screeding commences. Where applicable, especially on ground floors, there must be a damp-proof membrane below the screed or base. The screed should only be laid when the internal air temperature is between 5°C and 30°C.

Marshalls Cemfloor should be used and installed in accordance with the recommendations given in the Code of Practice: BS 8204. The freshly poured screed is levelled using a dappling bar, ensuring two passes are undertaken 90 degrees to each other.

## FLOWING PLACING

The floor should not be subjected to severe draughts, direct sunlight or heating for the first 24-48 hours to prevent rapid drying during this important early stage.

Marshalls Cemfloor is sprayed with a water based curing agent with a minimum efficiency of 75% (Adomast Safecure or similar product to be used) after placing.

The room in which the screed has been laid should be sealed therefore for a minimum of 24 hours, the room will be suitable for light foot traffic after this period and can be worked on after 72 hours.

## DRYING

The ambient conditions must be suitable for the drying of the screed with low air humidity (preferably 60% RH or less) and good ventilation.

Please note that moisture in the sub-base will impede the drying of the screed.

Before floor finishes are laid, the moisture content of the screed should be ascertained to be at, or below the required level.

Forced drying of Marshalls Cemfloor is possible if required: after seven days heaters and dehumidifiers may be used to improve drying conditions.

Underfloor can be commissioned after 7-days and can also be used to speed up the drying time.

The British standard for testing a base to receive a resilient floor covering is to use a Hair Hygrometer. This non-destructive test, when used strictly to the method defined in BS8203:2001, will give reliable results on Marshalls Cemfloor floor screeds.

## FLOOR FINISHES

Any type of floor finish can be applied to the Marshalls Cemfloor screed. The method for surface preparation is the same as for any other type of screed.

All adhesives, DPM's, cementitious based and fast-track systems can be used with no issue.

No surface sanding is required to remove any laitance, however any building residue on the floor must be removed prior to the application of the floor finishes by lightly sanding the floor.

Before floor finishes are laid, the moisture content of the screed should be checked by the floor finish contractor.

## TECHNICAL INFORMATION

Minimum thickness (Standard Product – C20 F4)

Bonded = 25mm

Unbonded over a solid base

Minimum = 30mm

Floating over thermal / sound insulation = domestic = 35mm

= commercial = 40mm

Cover over conduits / heating pipes

Minimum = 25mm

## SPECIFICATION & TECHNICAL PRODUCT INFORMATION

Flow range = 230mm–260mm (target for laying – 240mm)

Maintenance of fluidity = up to 3 hours – extended workability mixes can be supplied upon request.

Compressive strength at 28 days (standard product) = 20N/mm<sup>2</sup>

Flexural strength at 28 days (standard product) = 4N/mm<sup>2</sup>

Drying shrinkage at 28 days = 0.05%

Thermal conductivity = 2.9w/mK +/- 0.2

Fire rating (BS 476: Part 4) = non-combustible

In-Situ Impact Resistance - Category B – standard product.

Category A – commercial product.

pH: less than 10

Fresh Wet Density: typically 2,100-2,200 kg/m<sup>3</sup>

Dry Density: 2000 kg/m<sup>3</sup>