

CEMFLOOR

WITH CEMFLOOR TECHNOLOGY

Cemfloor is a ready-to use high performance, cementitious flowing floor screed that is delivered in truck mixers and then placed by pumping. In common with other floor screeding systems Cemfloor is not intended as a wearing surface and should be protected from damage.

MANUFACTURING STANDARD

Cemfloor complies with the requirements of:

- ▶ European standard BS EN 13813
- ▶ British Standard BS 8204-Part 7 Screeds, bases and in situ floorings.

And is available in BS EN 13813 strength classes of:

- ▶ C20 F4
- ▶ C25 F5

To ensure the best possible finish, it is strongly recommended that installation is carried out by a specialist screeding contractor. To ensure the correct thickness is achieved the contractor must place the screed to pre-set level indicators. The surface of the screed is brought to the final finish by the application of a dapple bar in two separate passes the second pass being at 90 degrees to the first.

KEY FEATURES AND BENEFITS

- ▶ Easy installation; up to 1000m² per day.
- ▶ Larger floor area without joints, up to 150m² is achievable subject to a suitable aspect ratio and shape on plan, typically a maximum aspect ratio of 1:4.
- ▶ Thinner sections are achievable compared to traditional screeds - 35mm domestic and 40mm commercial for a floating floor but minimum cover of 25mm for underfloor heating must be maintained.
- ▶ Self compacting, no voids around underfloor heating pipework giving improved thermal efficiency.
- ▶ Exceptional thermal conductivity - up to 2.9W/mK.
- ▶ Can be used in areas that are permanently wet.

- ▶ Reduced drying shrinkage.
- ▶ Can be opened to light foot traffic after 24 hours.
- ▶ Can be force dried after 7 days.
- ▶ Compatible with all cement based tile adhesive, no priming of surface required.
- ▶ No surface laitance (dust) after curing.
- ▶ Reduced drying times:

Natural drying - normal air circulation and no further source of moisture.

- ▶ 7 to 10 days where a Green Screed adhesive is used for ceramic or natural stone tiling.
- ▶ 21 days where a conventional adhesive is used.
- ▶ 28 days for solid wooden or laminate floors.

Forced drying - underfloor heating

- ▶ 11 days for ceramic or natural stone tiling.
- ▶ 21 days for solid wooden or laminate floors.

These are dependent on drying conditions* and should always be followed by a suitable moisture test as advised by the floor covering adhesive manufacturer.

For all "vinyl" floor coverings the manufacturers recommendations should be followed.

Under no circumstances should a screed placed over underfloor heating have a final surface finish applied before the heating system has been fully commissioned, run and the flooring contractor has satisfied themselves the surface is suitable for the intended floor covering.

*Drying times are based upon standard conditions of 20°C and 65% relative humidity.

APPLICATIONS

- ▶ Cemfloor is designed for use as a floating screed over thermal or acoustic installation, or un-bonded when placed on a plastic membrane.
- ▶ Cemfloor is compatible with all floor coverings, cementitious adhesives and floor leveling compounds.
- ▶ Ideal for both domestic and commercial use.

DESIGN CONSIDERATIONS

- ▶ Lower running costs for underfloor heating systems due to exceptional thermal conductivity and ability to lay thinner screeds above the heating pipes.
- ▶ More responsive to underfloor heating with faster heat up time.
- ▶ When compared to traditional sand cement screed the reduced thickness of Cemfloor can allow for an increased thickness of thermal insulation, in turn providing an improved U value for the building.
- ▶ Piped water underfloor heating systems require a minimum of 25mm cover over pipes in accordance with the recommendations of BS 8204-7 Screeds, bases and in situ Floorings.
- ▶ For electrical heating the system manufacturers recommendations for the minimum depth of cover must be followed.

PREPARATION AND LAYING

- ▶ The building must be weather and watertight, all external doors and windows should be fitted and closed and other sources of draughts sealed off.
- ▶ The optimum time for laying screeds is at the conclusion of work by any wet trades, this prevents damage and further delays in drying time.
- ▶ Cemfloor must be laid on a membrane - polyethylene sheeting (min. 500 gauge, 120 micron) any joints must be lapped a minimum of 100 mm and taped, bonded or heat sealed. The membrane should not be doubled or allowed to ripple.
- ▶ All ducts and services should be sealed to prevent the loss of Cemfloor.
- ▶ The perimeter of the area to receive Cemfloor must be fitted with a minimum 5mm closed cell polyethylene expansion strip. Where the building uses underfloor heating the perimeter expansion strip must be closed cell polyethylene or similar and a minimum of 10mm thick.
- ▶ The perimeter strip should be doubled at re-entrant corners.

- ▶ Maximum bay sizes - Cemfloor can be laid unbonded without joints up to an area of 150m² providing the aspect ratio of the room does not exceed 4:1.
- ▶ When used in conjunction with underfloor heating the bay size should not exceed 80m² and the aspect ratio is not to exceed 4:1.
- ▶ Crack inducers should be used in doorways and to ensure that maximum area and aspect ratio is not exceeded.



HEATED SYSTEMS

Under floor heating should be commissioned in accordance with the instructions of the manufacturer, and may be used to speed the drying of the screed from 7 days after installation.

For rapid drying the following procedure should be adopted:-

- ▶ Wait 7 days after laying screed at normal temperature, longer in periods of cold weather.
- ▶ Run the under floor heating at an input temperature of no more than 5°C above the screed temperature.
- ▶ Increase the water temperature by 5°C per day until the maximum feed temperature is achieved (Not exceeding the planned maximum input temperature or 55°C whichever is the lower).
- ▶ The feed should be held at this temperature for 4 days.
- ▶ Then reduce at 5°C per day back to ambient temperature.
- ▶ Allow the floor to cool for 48 hours prior to checking the moisture content, this should be carried out by the company / person installing the floor covering.

POST INSTALLATION - WEAR AND TEAR

Cemfloor once installed has a resilient surface that can withstand light foot traffic after 24 hours. In common with most screeds Cemfloor is not intended as a permanent wearing surface.

CURING

The use of a curing membrane is an option for the user. It is not necessary to use a curing membrane however the floor area should not be subjected to severe draughts, direct sunlight or heating for the first 48 hours.

Where curing is chosen we recommend the application of Adamast Safecure Standard applied at the rate of 15 square metres per litre.

DRYING TIMES

- ▶ Once the Cemfloor has been installed for 72 hours, the un-combined mixing water needs to be lost to the ambient air. This is best achieved by ensuring good ventilation and can be achieved by opening all windows and doors to allow free airflow. Windows and doors must be closed at night to avoid condensation. This daily routine must be carried out until the Cemfloor has dried to the required moisture content.
- ▶ Under ambient drying conditions - a temperature of 20°C and 65% relative humidity or less, Cemfloor drying times are typically 15 days for thicknesses up to 50mm. A thickness greater than 50mm will have prolonged drying times.
- ▶ Windowless rooms and enclosed areas may require the use of electric fans or dehumidifiers. Direct heating by means of hot air or radiant heat may cause curling and is not recommended.

FLOOR FINISHES

- ▶ Prior to installation of floor finishes, the screed may require light sanding to provide a mechanical key for floor finishes.
- ▶ Floor finishes must not be applied to Cemfloor unless the screed has been determined as dry by the company / person laying the floor finish. Cemfloor generally finishes to surface regularity SR2, suitable to receive some floor finishes directly.
- ▶ Where thin flooring is to be laid, most applicators will recommend a smoothing compound even to a well finished floor.



Screed Specification	EN 13813:2002
Compressive Strength	>20 N/mm ²
Flexural Strength	>5 N/mm ²
Minimum Thickness	Bonded: 20mm Unbonded: 30mm Domestic: 35mm Commercial: 40mm Over under floor heating pipes: 25mm above pipes
Shrinkage (28 days)	<0.05%
Flow rate	220–250mm
Thermal Conductivity	up to 2.9W/mK
Fire Rating	non-combustible
Drying Times	<ul style="list-style-type: none"> ▶ Specialised “Green Screed Adhesive” 5-7 days. ▶ Conventional cementitious adhesive without underfloor heating 21 days. ▶ Underfloor heating used to force dry in accordance with good practice, 11-13 days. ▶ For vinyls and similar impervious coverings consult the floor covering specialist.
Open to Light Foot Traffic	24 Hours

FOR FURTHER INFORMATION

To place an order or to speak to one of our Screed specialists, please contact the following sales offices:

Scotland - 01698 870947
North - 01524 738883

Midlands and South East - 01283 712677
South West - 01752 485201