



# Cemfloor HPC On-Site Procedures



## Introduction

- Cemfloor HPC is a specially formulated high performance concrete that can be used to create stronger and more durable floor slabs with less shrinkage and increased bay sizes to minimise joints compared to those constructed with conventional concrete.
- Cemfloor HPC should only be installed by approved contractors, who have been trained to lay self compacting concrete.

## Pre-installation Guidelines & Preparation of Substrate

- In all cases, a polythene membrane of 120 micron minimum thickness and 250 micron maximum thickness must be laid on the substrate
- The sheet should be laid with a 300mm overlap, adhesive tape at least 50mm wide should be applied along overlapping joints of the sheets to seal them.
- Care should be taken to ensure the membrane is folded, or cut and sealed, into a corner.
- Around the perimeter of the room, the edges of the polythene membrane should extend well above the intended level of topping or should be taped to the foam strip.
- Care should be taken to ensure no ridges or folds are left on the surface of the polythene.

- A minimum 5mm thick compressible border strip should be applied around walls and all upstands, columns, piers, and pipes.
- Maximum Bays of 100m<sup>2</sup> for unheated floors and 80m<sup>2</sup> for heated floors can be placed without the need for construction joints. Joints must be placed at all doorways.
- Insulation with a minimum strength of 100kPa must be used in floating floors.
- If underfloor heating is present then Cemfloor Therm HPC must be used.

## Installation of Cemfloor HPC

- Before pumping commences each load of Cemfloor HPC should be tested for workability and if required adjusted accordingly. The target flow for this product is 650mm to 700mm.
- Care should be taken to avoid leading edges being left open for any length of time. Fresh deliveries of Cemfloor HPC must always be well blended in using the dapping bar/brush.
- When placing the product, the hose should be held approximately 500mm from the substrate. The pipe should be moved in a sweeping motion and should not be held stationary above any fixed point.

## Finishing Process

- Using a dapple bar level the concrete in one pass.
- Complete levelling process by passing over the concrete in the opposite direction to the first pass using the dapple bar.
- Apply a 90% efficiency concrete curing agent to the levelled concrete. It is essential to ensure complete coverage of the slab surface at the rate as per manufacturer's guidelines
- A knap sack spray is recommended, as the curing agent can then be applied during the second pass with the dapple brush.

## After Placing

- The surface will be suitable for light foot traffic after 24 hours and can be worked on after a period of 72 hours from placing
- The slab should not be loaded with palletised materials until at least seven days
- Partitions can be erected after a minimum of seven days from the time of placing.
- The slabs moisture content should be measured before placing floor coverings to ensure that it is adequately dried. Cemfloor HPC will not require any sanding to remove laitance but as per industry standards it is recommended to lightly abrade the surface to clean and remove any building residue and to improve the adhesion of the flooring adhesive to the hardened concrete.
- The slab should be protected from excessive winds or drying for 48 hours after placing.

