



High Performance Concrete



Product Description

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. Higher compressive and flexural strengths are achieved enabling a reduction in slab thickness providing an improved environmental profile. High quality finishes can be achieved without power floating. Cemfloor HPC is compatible with steel fibers and macro/micro polypropylene fibers to further enhance the performance of the concrete.

Benefits

- Fluid concrete ensures full compaction around the metal decking
- High quality finish is achieved
- Easy installation allows large areas to be poured quickly
- Reduced labour required for installation compared to traditional concrete
- No vibration or power floating required
- Possible to eliminate steel mesh reinforcement

Characteristics

- High fluidity ensures excellent pumping characteristics.
- Floor finish tolerance to BS 8204 – 1 SR2 SPECIFICATION
- Maintenance of fluidity – Three hours
- Compressive strength at 28 days - Minimum 30N/mm²
- Flexural Strength at 28 Days - Minimum 5N/mm²
- Minimum thickness – 50mm
- Drying Shrinkage - Less than 500 micron/metre
- Reduced Risk of Cracking
- Flow range - 650 - 750mm

Application

To ensure a high quality slab it is recommended that application is carried out by a specialist contractor who has been approved to place Cemfloor HPC. The freshly poured screed will need to be levelled using a dappling bar, ensuring to dapple the surface in two passes at 90°. After dappling the slab must be cured with a suitable high efficiency water based curing agent.

Curing

After placing the floor should not be subjected to severe draughts, direct sunlight or heating for the first 24-48 hours. The room in which the HPC has been placed should therefore be sealed during this time. The room should be ventilated after 24-48 hours by opening windows and doors during the day to aid the drying process.

Floor Coverings

Cemfloor HPC is compatible with all floor coverings, and all cementitious adhesives including fast track systems. 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.

Compressive Strength	Minimum 30N/mm ²
Flexural Strength	Minimum 5N/mm ²
Minimum Thickness	Bonded: 65mm Unbonded: 65mm Floating: Domestic: 65mm Commercial: 75mm
Shrinkage (28 Days)	<0.05%
Slump Flow	650 – 750mm
Fresh Density	2250 – 2350 kg/m ³
Open to Light Foot Traffic	24-48 Hours
Maximum Bay Sizes	100m ²



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