

Site Requirements for Hollowcore Slab Installation

General

- In order to obtain a flush ceiling on brickwork, the load bearing walls and beams must be level.
- Access should be available around the building on which the slabs will be erected
- All load bearing bricks or blocks should have a minimum compressive strength of 14MPa
- Hollow-core panels should have a minimum bearing of 90mm
- Precast concrete lintels must be placed and additional brickwork constructed as specified
- Site dimensions also need to be accurate to avoid any delays
- Minimum bearing for slabs: 80mm to 100mm on brickwork and 60mm on steel ad reinforced concrete beams

Service Holes

- Service holes of up to 90mm may be core drilled in the panels on site.
- Any service holes larger than 90mm should be referred to the Design Engineer.

Grouting of Key Joints (V-joints)

- The grouting of v-joints along the longitudinal length of the panels should have a minimum cube comprehensive strength of 25MPa at 28 days
- Under NO circumstances must any form of materials (electrical conduits etc.) be placed in the v-joints with the concrete grouting
- The joints must be free from any materials and hosed wet before placing of the grout
- The aggregates used must not be larger than 9mm
- No movement, loading of bricks or wheelbarrow loads may be on the slabs until the grout has hardened

Screeding (Non-structural)

- The grouted joints and placed hollow-core panels must be inspected by the Design Engineer before screeding commences
- The engineer should be given 24 hours advanced notice of the inspection
- The surface of the slab must be swept clean
- The slab should be thoroughly wetted and the screed applied immediately
- The screeding should have a minimum thickness of 30mm unless otherwise specified
- Should the screed exceeds 75mm, Portland shall be contacted to confirm that the slabs are capable of supporting the additional load
- After laying the screed it should be steel floated and then wetted for 48 hours to prevent shrinkage cracks
- On all open or exposed areas mesh ref. 100 must be placed in 50mm thick leveling screed

Structural Topping (including mesh)

- Hollow-core panels must be back-propped before placing the 30MPa concrete topping - minimum 50mm thick with props that are able to resist the load of wet concrete topping
- The surface of the slab must be swept clean, free from dust and any other materials
- The slab should then be thoroughly wetted without any pounding
- The structural topping should have a comprehensive strength of 30MPa at 28 days
- The aggregates used must not be larger than 9mm
- The structural topping must be cured by wetting for at least 4 days after casting
- The structural topping should also be vibrated into open cores and joints to ensure monolithic action with the precast elements
- Mesh ref 193 to be placed in the topping

Tiling

- All new concrete work or screed must be cured fully before tiling proceeds
- Surfaces must be clean and free of all traces of curing agents, laitance, loose particles and any other surface contaminants
- Power-floated or steel trowelled surfaces must either be scarified or keyed with slurry consisting of a cement and a "keycoat" type product. The adhesive must be applied while the slurry is still "tacky"
- Tiling should be done with a flexible adhesive
- Tiles must have soft expansion joints of 5mm and silicone expansion joints where areas exceed 16m²