**Ground-bearing-concrete-slab-and-suspended-concrete-slab**

**Concrete slab**

A concrete slab is a common structural element of modern buildings. Horizontal slabs of steel reinforced concrete, typically between 4 and 20 inches (100 and 500 millimeters) thick, are most often used to construct floors and ceilings, while thinner slabs are also used for exterior paving.

**Ground-bearing concrete slab and suspended concrete slab**

In many domestic and industrial buildings a thick concrete slab, supported on foundations or directly on the subsoil, is used to construct the ground floor of a building. These can either be "ground-bearing" or "suspended" slabs. The slab is "ground-bearing" if it rests directly on the foundation, otherwise the slab is "suspended". In high rise buildings and skyscrapers, thinner, pre-cast concrete slabs are slung between the steel frames to form the floors and ceilings on each level. Cast in-situ slabs are used in high rise buildings and huge shopping complexes as well as houses. These in-situ slabs are cast on site using shutters and reinforced steel.

**Concrete slab construction**

A concrete slab may be prefabricated or on site. Prefabricated concrete slabs are built in a factory and transported to the site, ready to be lowered into place between steel or concrete beams. In-situ concrete slabs are built on the building site using formwork - a type of boxing into which the wet concrete is poured. If the slab is to be reinforced, the rebars, or metal bars, are positioned within the formwork before the concrete is poured in. For a ground slab, the form-work may consist only of sidewalls pushed into the ground. For a suspended slab, the form-work is shaped like a tray, often supported by a temporary scaffold until the concrete sets.
In-situ concrete slabs on site

Prefabricated concrete slabs

**Lightweight prefabricated concrete panel**

Lightweight aggregate eps concrete panel is a lightweight prefabricated concrete panel, compositied by expanded polystyrene and cement as light weight aggregate filler instead of concrete solid core. It can largely decrease the weight of concrete slab with better sound insulation, heat insulation performance, on the other hand, with lower strength and load bearing. Sometimes also can use as slab if there's steel frame for supporting.

Load-bearing wall, Bearing wall;

Siding (wall cladding);

Exterior insulation and finish system (EIFS);

Comparison of compression and tensile strengths;

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