

# Solid concrete floors

Solid concrete floors appear as storey partitions from the 1930s up to the end of the 1960s, when there is a shift towards prefabricated floor sections.

Solid floors from reinforced concrete slabs cast on site appear as simple or crosswise reinforced floors, depending on the number and location of load-bearing walls.

In standard residential buildings with spans of up to five metres, the slabs are 12-15 cm thick. Dimensioning is carried out on the basis of calculations in each case, in contrast to the dimensioning of joist frameworks, where load capacities of beams are simply taken from a set of tables.

The support depth for reinforced concrete floors in masonry constructions is normally one half-brick. In exterior walls asphalt felt is laid in the supports.

Smaller holes, e.g. for pipework, are set out in the formwork, where any weakening is counteracted by the insertion of extra iron.

Larger holes are underpinned by beams cast at the same time as the floor; this also applies to edge reinforcements.

A new problem arose with solid reinforced concrete floors: that of condensation on the underside of the floor against the exterior walls.

As a solution to this problem, a ca. 50-cm-wide layer of cork (2-3 cm thick) or wood wool slabs (5 cm thick) is usually laid in the mould prior to casting, which usually results in a cover plate that is thicker than necessary solely with regard to loading capacity.

The same solution is used for balconies constructed as protruding cover plates.

