# Waffle slabs designed as two-way slabs with integral beams and

level soffits (standard moulds)



### ADVANTAGES

- Medium spans
- Lightweight
- Level soffit
- Profile may be expressed architecturally, or used for heat transfer

These slabs are popular in spans up to 10 m. They combine the advantages of waffle slabs with those of level soffits.

Standard moulds are 225, 325 and 425 mm deep and are used with toppings between 50 and 150 mm thick. The ribs are 125 mm wide on a 900 mm grid.

Depth is governed by deflection of the beams, which, therefore, tend to be heavily reinforced. The chart and data assume internal beams at least 1925 mm wide (ie. two waffles wide) and perimeter beams at least 962 mm (ie. one waffle) plus column width/2, wide. They include an allowance for an edge loading of 10 kN/m.

#### DISADVANTAGES

- Higher formwork costs than for plain soffits
- Slow. Difficult to prefabricate reinforcement



#### SPAN:DEPTH CHART

## Waffle slabs designed as two-way slabs with integral beams and

level soffits (bespoke moulds)



Profile may be expressed architecturally, or used for

These slabs are popular in spans up to 10 m as they combine the advantages of bespoke waffle slabs with level soffits. Bespoke moulds can overcome the dimensional and aesthetic restrictions imposed by standard moulds. However, site operations remain complicated.

Economic depths are a function of the beam width. The beams are governed by deflection and, therefore, tend to be heavily reinforced. The ribs are a minimum of 125 mm wide.

For simplicity, the chart and data assume a 900 mm grid, internal beams at least 1925 mm wide (ie. two waffles wide) and perimeter beams at least 962 mm (ie. one waffle) plus column width/2, wide. They include an allowance for an edge loading of 10 kN/m.

#### DISADVANTAGES

- Higher formwork costs than for standard moulds and other slab systems
- Slightly deeper members result in greater floor heights
- Slow. Difficult to prefabricate reinforcement



#### SPAN:DEPTH CHART

**ADVANTAGES** 

Medium spans Lightweight

heat transfer