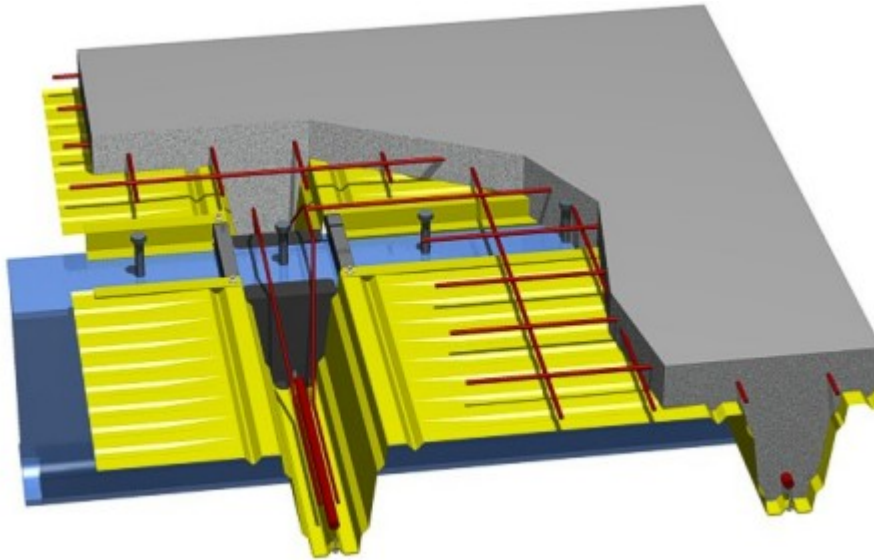


## Hoesch Additive Floor® System structure



- Steel composite girder
- + Trapezoidal steel profile TRP 200
- + Shrouded-type panels
- + Attachment
- + Armouring
- + Concrete

Drive with the mouse over the color bar. The suitable picture is then shown in each case!

### The firm base

The characteristic floor geometry is created and determined by the Additive Floor profiles. As a result of the depth of the structural profile, good resistance to deflection and an excellent resistance to bending is achieved. The special trapezoidal geometry gives the reinforced concrete core the appearance of a light-weight ribbed floor. In the concrete pouring stage, spans of approx. 5.50 m can be achieved without any auxiliary props.

The trapezoidal profiles prevent the bearers from tilting during concrete pouring and thus contribute to all round stability. A structural analysis, however, is required.

Hoesch Additive Floor® is produced with high-quality Hoesch coating systems and can reach corrosion resistance class III to DIN 55 928-8.

### The particular geometry

The reinforced concrete core is equivalent to a reinforced concrete slab-and-girder floor according to DIN 1045. When compared with massive reinforced concrete floors, such floors have the same resistance to deflection but a substantially lower concrete weight. Since the webs are of a large structural depth, the amount of wire mesh can be reduced. Hoesch Additive Floor® can be designed to accept live loads of up to 5.0 kN/m<sup>2</sup> without bent-up reinforcing bars.

### The patented method of support

Floor and composite girders are connected using a patented method of support. Hoesch Additive Floor® is placed on massive steel cleats which are welded to the upper flanges of the composite girders. Using this method of support, all transverse loads are transmitted during concrete pouring and after curing. Shear connectors are used to connect floor and composite girders and to bridge the depth of the structural profile. The load-bearing capacity of the shear connectors is not affected by the hollow cells of trapezoidal profiles in a transverse direction. Since the upper flanges of the steel girders are not covered by trapezoidal profiles placed in transverse direction, the shear connectors can be arranged as may be necessary. The ribbed webs in the cross profile of the floor are placed between the bearers which results in a low overall height. When the steel cleats are welded diagonally, any floor geometry can be catered for.