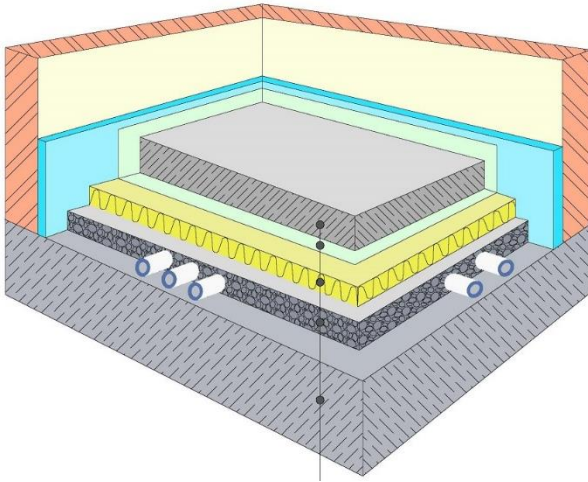


FLOOR WITH FOAM CONCRETE AND THERMAL INSULATION

Modification of the foam concrete: FC 300 to FC 500

Usage: The floor is designed for the use in the **interiors of civil buildings** with the placement above unheated areas or on a board of screeding concrete.
The levelling layer from foam concrete eliminates the need to calculate the over-consumption of the screeding material resulting from the uneven underlay and minimizes the cracks in the screeding resulting from its uneven thickness.

Example of the layer composition:



- screeding in the thicknesses according to the building project
- separating layer
- thermal insulation layer, non-absorbent
- FC 300 + FC 500 layer covers the installation tubes for the distribution systems of water and electricity as well as other irregularities of the ceiling
- supporting ceiling structure or concrete board
- floor layers separated from the masonry by a flexible non-absorbent material - EPS, foam PE, etc.

Description of the layers:

Wear layer: slabs, tiles, carpet, PVC. In case of the free laying of this layer on the screeding, it is recommended to apply a dust-removing paint on the screeding surface.

Screeding - spread layer:

- processed manually, ideally from prefabricated cement mixtures, with strength properties for placement on a compressible underlay with a thickness according to the project and technical documentation of the manufacturer of the screeding
- self-levelling poured screeding, anhydrite or plaster, with strength properties for placement on a compressible underlay with a thickness according to the project and technical documentation of the manufacturer of the screeding

Separating layer: PE foil with the thickness of at least 0.1 mm.

Thermal insulation layer: floor polystyrene (EPS), mineral-fibre board with a thickness according to the project

Separating layer: PE foil with the thickness of 0.1 mm, to be used if the thermal insulation is made of a mineral-fibre board

Levelling layer: foam concrete FC 300 to 500, see the technical document no. 301, with the thickness at least up to the upper part of the installation tubes

Supporting ceiling structure: reinforced concrete, ceramic ceiling, or board of screeding concrete

Masonry: plastered and the surface of the plaster is smoothed, contact of the support board and the masonry - linear

Separation of the floor from the masonry: flexible non-absorbent strip - foam PE, EPS, thickness of at least 5 mm, with foldable foil

Related standards:

STN EN 1991-1-1	Loading of building structures
STN EN 1992-1-1+A1	Design of concrete structures

Preparation

Wear layer: It is necessary to observe the applicable application regulations of the supplier.

Screeding: Apply immediately after the mounting of the separation layer, it is necessary to observe the relevant application regulation of the supplier.

Separating layer: Apply immediately after the mounting of the thermal insulation layer.

Thermal insulation layer: Apply immediately after achieving the trafficable strength of the foam concrete FC 300 to 500.

Separating layer: In case that there is no vapour barrier under the FC, apply it immediately after achieving the trafficable strength of the foam concrete FC; in case there is a vapour barrier under the FC, leave the FC layer to achieve natural moisture with the contribution of draft-free sudden ventilation

Layer of FC 300 to FC 500 foam concrete: It is necessary to observe the General conditions for the production and processing of iwtech light concrete and the manufacturing procedures for foam concrete FC 300 to FC 500.

Designing:

Always place the floor heating elements into the screeding layer, never into the levelling layer of the FC.

The composition of the floor, including the thickness of the particular layers, should be part of the construction project.

Further details regarding the levelling layer made of FC 300 to FC 500 can be obtained at the company iwtech europe s.r.o., on request.

Validity: from 20.2.2023