

RSS® Flüssigboden as foundation slab

The foundation is the structural connection between the structure and the soil with the aim that the loads and deformations of the soil caused by the structure are smaller than permissible from the point of view of the structure. The foundation slab carries the vertical load of the building above into the subsoil. The RSS® Flüssigboden used for the construction of a foundation slab has properties that can be adjusted depending on the project. Load-bearing capacity and elasticity are often the most important properties.

Foundation slabs/framed foundation slabs

Foundation slabs that carry building loads are usually made of reinforced concrete. If high elasticity and low strength/load-bearing capacity are required, liquid soil can be used as filling material. In addition, soil improvement may be useful for poorly load-bearing subsoils. Here the load-distributing effect is the most important factor.

The special case of the framed foundation slab made of RSS® Flüssigboden is intended to restrict the movement of a non-load-bearing subsoil as well as to stabilise the subsoil and, if necessary, prevent base failure. The frictional forces as well as any pressure differences arising from the lateral "deep foundations" are intended to increase stability against loads.



Reference projects

Construction project: Westoverledingen foundation slab under road

Construction period: 2016

Client: Straßenbau Prüfstelle GmbH (StraPs)

Planning: LOGIC Logistic Engineering GmbH



Properties of the liquid soil according to requirements and source material

- The liquid soil must be homogeneous and free of any tendency to segregation.
- The viscosity must be high enough to prevent segregation and low enough to ensure cavity-free placement.
- Strength and elasticity in the form of load-bearing capacity or unconfined compressive strength according to technical planning.
- Friction coefficients, pumpability, water permeability and other properties according to technical planning specifications. Water permeabilities $< 1.00E-08$ m/s are often required.
- Re-use of almost every excavated material possible

Construction project: Rheinfelden, Garden centre

Construction period: 2011

Production: Bau GmbH, Herrischried

Planning: LOGIC Logistic Engineering GmbH

