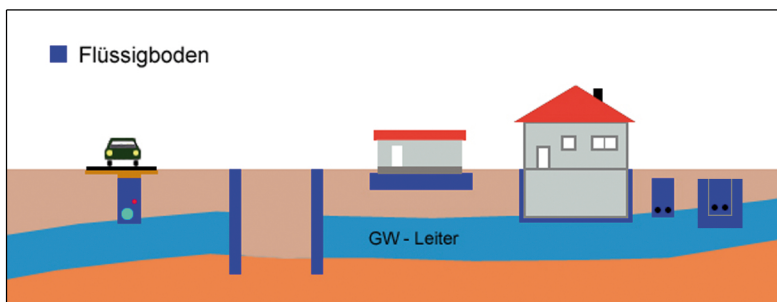


## RSS® Flüssigboden as aquitard

Aquitards consist of rock material or grains and are less permeable to water than their surrounding aquifers.

### Aquitards

Since the property of an aquitard is relative, no absolute values for water permeability can be given. In general, the k-value for liquid soil with granular surrounding soil is between  $5.00E-08$  m/s and  $1.00E-09$  m/s. For some construction projects the difference between liquid soil as an aquitard and the surrounding soil is relevant, for other projects the absolute values are decisive. Usually a liquid soil from a source material with a k-value  $> 1.00E-09$  m/s becomes more dense. A liquid soil from a source material with a k-value  $< 1.00E-09$  m/s is more permeable. The properties are adjustable within limits. Typical applications are the protection of groundwater (eg wastewater pipes in a groundwater protection area = mineral encapsulation) or protection against infiltrating groundwater (eg construction waterproofing or protection against hydraulic base failure).



Applications with RSS® Flüssigboden as aquitard

### 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.
- When using the tremie method, the viscosity is often in the range of 45-52 cm.
- 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. The presence of cohesive components in the source soil is a positive factor.

