



TERRA-3000®

Incorporation of pollutants through immobilization

Through immobilization, the pollutants in the contaminated soil material are bound into a mechanically strong and chemically stable matrix. This is done by applying TERRA-3000® to the existing medium.

The process can equally be used for contaminated soil, sludge, ashes, dust, building rubble and other mineral waste.

The treatment process essentially consists of the process steps outlined below (here for soil):

- Examination of feasibility based on the available analysis
- Development of a renovation and utilization concept
- Carrying out an aptitude test
- Expansion of contaminated soil
- Fractionation (screening) and possibly breaking of the oversize particles (> 30 mm)
- Intensive mixing in a high-performance mixer
- Addition of clay-containing material at least 20% clay (<0.002mm), as well
- TERRA-3000® according to information from manufacturer
- Setting the optimal water content during the mixing process
- Transfer of the finished mix or immobilized material to a truck
- Installation of the material as a high-quality building material
- Quality assurance and success control

Mode of action

The treatment results in a whole range of positive material changes. The following are mentioned as essential:

- Reduction of the ability to mobilize pollutants through their physical and chemical integration
- * Reduction of dust drifting with solid media
- * Reduction of elution with liquid media
- * Reduction of outgassing (e.g. Hg) in gaseous media
- * Reducing erodibility
- * Reduction in permeability
- * Increase in compressive strength/stability
- * Improvement of settlement behavior
- * Improving the load-bearing capacity of the subsoil
- *The particular advantage of immobilization is that waste (for disposal) is turned into a high-quality asset.



After treatment, the contaminated soil material is not only ecological uncritical, but can also be easily used in terms of construction technology, i.e. it will be here, two goals are achieved in one processing step.

This results in, among other things, the utilization options as:

- Material replacement, e.g. for foundations in road/railway construction
- Dam building material in road/railway construction
- Frost protection layer in road/railway construction
- Bonded base course in road construction
- Foundation and cleanliness layer in building construction
- Foundation concrete in building construction
- Core filling of noise barriers
- Sealing area on old sites
- Preconditioning of waste to achieve landfill suitability
- Pre-treatment of waste for classification into lower landfill classes.

It will be burdened, structurally speaking unusable material after treatment installed as soil replacement material.



Treated material is a high-strength dam building material that not just for rail transport route construction can be used.

Inner city developed contaminated material was used to build the body of the dam.





Even the production of frost-resistant bound material from old gravel and backfill is possible.

Here, immobilised bound TERRA-3000® base course paved with a paver.



Another possible application for Immobilisat is the production of noise barriers



Immobilisate seals with TERRA-3000® material

For the production of sealing materials
In addition to natural soil materials,
harmful substances can also be
mineral waste and residual materials
can also be used.



By processing with suitable
aggregates, as shown here
in a landfill construction project,
from contaminated sludge
from contaminated mineral
sealants from contaminated
sludge.

Seals made of Immobilisat are
characterised, in addition to the required
low permeability, they are characterised
by workability and insensitivity to weather
influences, especially against drying out.

