

ADSORPTION

Description/Application

The process of Adsorption describes the enrichment of relatively low pollutant concentrations out of a high air or water volume. The enriched form of the pollutant can be discharged.

In general the following substances are used:

- activated carbon,
- activated clay,
- silica gel,
- scavenger.

Among their basic adsorption characteristics those substances have to be highly mechanically strong and abrasion stable for the technical application. Their capacity at frequently ad- and desorption may decrease only slowly.

Experience and Application

In the decontamination sector activated carbon is mainly used for the adsorption of pollutants.

Generally activated carbon can be differentiated depending on the application in the gas phase (activated carbon for air) and for the application in the liquid phase (activated carbon for water).

Delta Umwelt-Technik GmbH uses the adsorption for following applications:

- as policy filter (protection filter) in groundwater treatment plants,
- as cleaning step for temporary treatment tasks,

- in the gas phase for the cleaning of discharged air from desorption columns,
- cleaning of contaminated air in halls of treatment working sites,
- in combination with biological processes.

Some pictures of projects with adsorption steps:

