

GoSorp® G-X

Steam-activated carbon for the removal of siloxanes and VOCs from sewage gas and industrial exhaust air

The problem

Among other things, the industrial sector emits volatile organic compounds (VOCs) into the atmosphere. These include some of the main causes of unpleasant odors, which often lead to complaints from local residents.

VOCs are not only found in industrial exhaust air, but also in sewage gas and biogas. In addition to VOCs, siloxanes in particular are a strong catalyst poison. Organic silicon compounds accumulate in the digested sludge during the treatment of wastewater and pass into the sewage gas during anaerobic sludge stabilization.

When gas is utilized in combined heat and power plants (CHP), siloxanes lead to silicon deposits on engine parts (pistons and valves), which significantly increase wear and shorten the service life of the CHP.

In order to consistently meet the technical and legal requirements, a robust, high-quality, versatile, effective and economical process is required. The GoSorp® G-X is the ideal solution for binding VOCs and siloxanes in the gas.

The solution

GoSorp® G-X is a granulated, vapor-activated carbon - especially for the removal of VOCs and siloxanes.

Due to the optimized ratio of micro- to mesopores, components with both small and medium molecule sizes can be effectively adsorbed. Abrasion resistance is maximized due to the optimized product design.

GoSorp® G-X is granulated and available in different particle sizes to meet different pressure drop requirements.

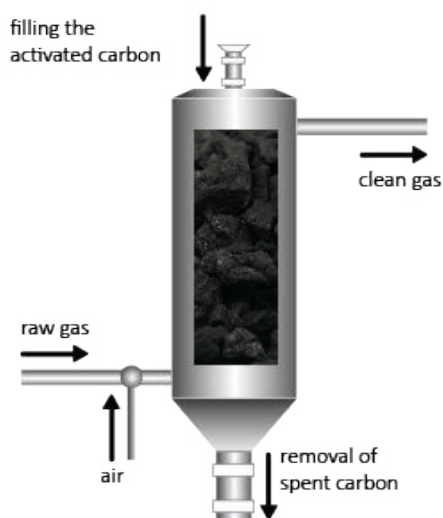
GoSorp® G-X is manufactured as a branded product in one of the most modern production facilities for activated carbon in the world in accordance with high quality standards.



Filter for odor removal from the exhaust air of a sewer shaft
(source: HeGo Biotec GmbH)

The process

The organic gas components are non-specifically bound to the activated carbon due to their polar properties (physisorption). The adsorbent is not chemically altered in the process. The loading of a substance depends in particular on the polarity, molecule size, pore size distribution of the activated carbon, the boiling point, the operating pressure, the gas temperature, relative gas humidity and the pH value.



Advantages

- High loading rate for volatile organic components (e.g. odor molecules and siloxanes)
- Homogeneous, medium degree of activation to achieve an optimized ratio of micro- to mesopores
- High abrasion resistance
- Very low dust content – also advantageous for product handling and filling
- Low self-ignition potential due to low ash content

Additional services

- GoSorp® G-S for removing H₂S
- Activated carbons for VOC adsorption (in the absence of siloxanes in the gas) can be reactivated - ask for our GoSorp® G-RV
- Support with disposal
- Media exchange service
- Gas analysis
- Mobile filters
- Small bags and big bags

Select the right grain size of the granules:

- **3x6 mesh (3.35 - 6.30 mm) standard size**
- 4x8 mesh (2.36 - 4.75 mm)
- 6x12 mesh (1.70 - 3.35 mm)
- 8x16 mesh (1.18 - 2.36 mm)

**We gladly advise
you individually!**

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