

Adsorptive precision in removing organic contaminants and odors from liquids and gases

Activated carbon, also known as activated charcoal, is a highly porous material widely used in various filtration processes due to its adsorptive capacity. It is commonly applied across many industries—such as food, chemical, pharmaceutical, and water treatment—because of its ability to remove a broad range of contaminants, including organic compounds, gases, odors, and certain chemical impurities.

Technical data

Material:

activated carbon

Format available:

filter sheets
filter capsules
lenticular filters

Micron rating

0,25 µm do 15 µm

Operating parameters

Max operating pressure:

laboratory filters 30psi (app. 2bary)

Contact time: For filters with granular activated carbon, the recommended contact time is 8–12 minutes, with a minimum bed height of 1 meter and a flow rate of 12 m/h.

FEATURES

- Activated carbon has an enormous adsorptive surface area due to the microscale pores in its structure. This makes it highly effective at removing contaminants from liquids and gases.
- It is effective in adsorbing a wide range of substances, including organic contaminants, chlorine, gases, certain heavy metals, as well as odor- and color-causing compounds.
- It is resistant to many chemicals, making it suitable for use in harsh industrial and laboratory conditions.
- Activated carbon can be regenerated, allowing it to be reused after the filtration process is complete. The regeneration process typically involves exposing the carbon to high temperatures or steam, which restores its adsorptive capacity.
- Thanks to its large adsorptive surface area, activated carbon can operate effectively for extended periods before requiring replacement or regeneration.
- Activated carbon is relatively safe when used as directed and does not react chemically with most substances, except for very strong acids or bases.

APPLICATION

- Chlorine removal from water
- Odor and color removal from juices, wine, and beer
- Removal of organic contaminants in pharmaceuticals
- Volatile organic compounds (VOCs)
- Odors in ventilation systems