

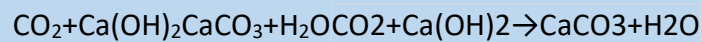


## FILTERING SYSTEM

### CO<sub>2</sub> CARTRIDGE

Soda lime, a mixture of chemicals primarily composed of calcium hydroxide (Ca(OH)<sub>2</sub>) and sodium hydroxide (NaOH), is commonly used to remove carbon dioxide (CO<sub>2</sub>) from gas streams. This process is known as carbon dioxide absorption.

The overall reaction can be summarized as follows:



CO<sub>2</sub> removal cartridge comes in standard size to use in our system: 150 x 200 x 50mm

Elevated levels of CO<sub>2</sub> can accelerate the degradation of certain materials, including paper, textiles, and organic compounds found in artwork. By controlling CO<sub>2</sub> levels, museums can mitigate the risk of chemical reactions and deterioration, preserving the integrity and longevity of valuable artifacts.

CO<sub>2</sub> can contribute to the acidification of the environment. In the presence of moisture, CO<sub>2</sub> can form carbonic acid, which may adversely affect sensitive materials. Maintaining optimal CO<sub>2</sub> levels helps prevent acidification, safeguarding artifacts from potential harm.

Elevated CO<sub>2</sub> levels can contribute to conditions favorable for mold growth. Mold can pose a serious threat to artifacts, causing irreparable damage. By controlling CO<sub>2</sub>, museums create an environment less conducive to mold proliferation.

For more information about our filtration system, please visit our download page:

<https://www.preservatech.com/downloads>