CORNING

Ceramic technologies for a greener world

Corning is applying its deep expertise in materials science and emissions control to help expand and scale the foundational technology needed for a rapidly evolving industry – carbon capture.



Contact Us Corning.com/carbon-capture environmental@corning.com

Applying ceramic and extrusion expertise to a new challenge

Governments and businesses increasingly see active CO_2 removal as a necessary lever in the fight against climate change. Carbon capture, utilization and storage (CCUS) and carbon dioxide removal (CDR) technologies are key initiatives trying to tackle this challenge.

Corning's honeycomb substrates are ideally suited solutions for CO_2 capture technologies that utilize solid sorbents.

Benefits:

- Materials of high mechanical strength
- · Wide range of porosities
- Low mass
- · Wide flexibility for channel geometry designs
- High geometric surface area with low pressure drop
- · Can process large volumes of flow-through
- Supports active sorbent materials critical to carbon capture

Corning is applying its expertise to two primary technology approaches:

- Direct-air capture (DAC) technology aims to reduce CO₂ already in the atmosphere. Most DAC facilities will leverage a process called adsorption. In this process, ambient air cycles through sorbent-coated structured media, like honeycomb substrates, to adsorb CO₂. The CO₂ is then desorbed and transported to be sequestered or utilized.
- **Point-source capture technology** aims to extract CO₂ from energy intensive industrial exhaust sources. The CO₂ is captured and then sequestered for permanent storage or utilization.





DAC systems are modular, like solar farm



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