

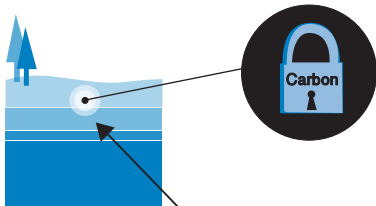


# GCERM

## Global Center for Efficiency in use of Resources and Materials

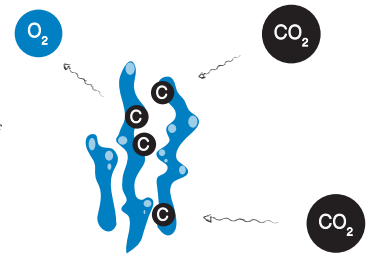
### Step 7

The formerly carbon from atmosphere and/or ocean is permanently bound within the carbon fiber in a stable state of aggregation.



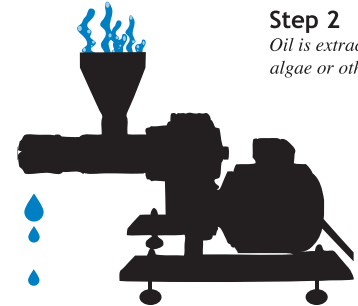
### Step 1

The photosynthesis of algae or other plants converts CO<sub>2</sub> into O<sub>2</sub> and organic carbon.



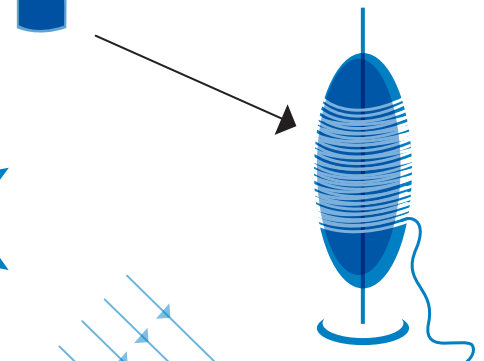
### Step 2

Oil is extracted from algae or other plants.



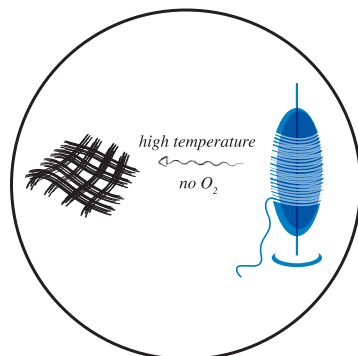
### Step 3

The plant oil is the base material for fiber production, e.g. Dralon fibers.



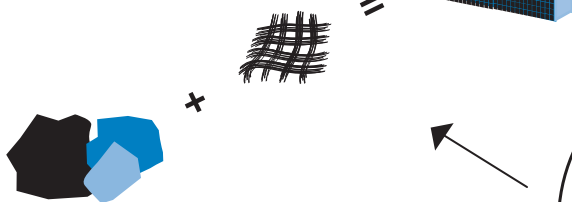
### Step 4

With the aid of focussed sunlight by parabolic mirroring technology the Dralon fibers get carbonized under exclusion from oxygen, to generate carbon fibers.



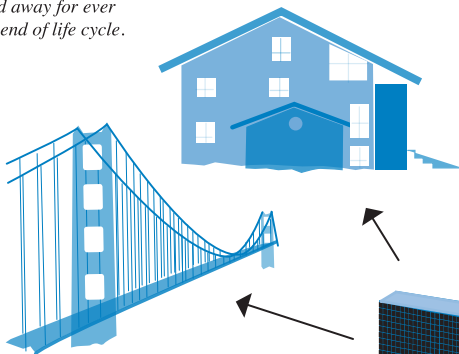
### Step 5

Together with hard rock such as granite the carbon fibers become high performance building and construction material.



### Step 6

After use the two components can be easily separated again and either down-cycled or stored away for ever after end of life cycle.



**How to make carbon fiber based building materials out of CO<sub>2</sub>**