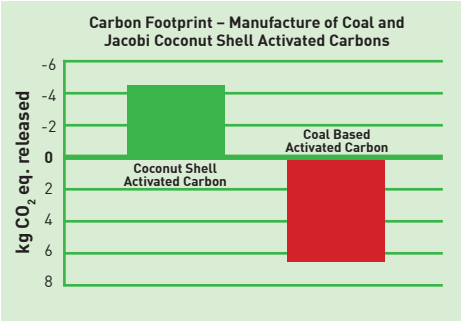
Green Coconut Shell Activated Carbon

The real facts

Jacobi Carbons is the largest coconut shell activated carbon manufacturer in the world, with multiple locations and a manufacturing capacity in excess of 25,000 metric tons. As a Swedish company, we take our environmental responsibilities very seriously. We are the only coconut shell carbon manufacturer with the foresight to have attained ISO 14001, the only globally accepted standard for environmental management. With the commitment of our entire organization we have been able to achieve the delicate balance addressed by the standard of maintaining profitability while reducing environmental impact.



Raw Material Differences

The vast majority of activated carbon produced today is made from non-renewable fossil fuel sources such as bituminous coal, lignite coal and peat. These types of raw materials can be up to 400 million years old. The production of 1 metric ton (MT) of standard coal based activated carbon releases about 6 MT of CO_2 per MT of activated carbon produced. The production of coconut shell instead fixes the CO_2 that would have been released from the natural decay of the coconuts as a solid, preventing its release to atmosphere, sequestering the CO_2 (see graph).


Open pit charcoal manufacturing

The Charcoal Process

While coconut shell activated production is very "green", there are differences in how the raw material, coconut shell charcoal, is produced prior to activation. Most coconut charcoal is produced in open pits or open drums using primitive charring techniques that emit large quantities of CO_2 and unburned methane directly to the atmosphere. Jacobi is committed to the greener, more advanced, charcoal production technique of closed pit charring. Closed pit charcoal production allows complete hydrocarbon combustion and the heat released is used to replace that previously produced from other fuels. The vast majority of Jacobi's coconut shell activated carbon and 100% of the production from our wholly-owned facility in India utilizes charcoal from sources using this advanced closed pit charring technology. This reduces the release of methane gas to the atmosphere by over 2,000 MT per year (the equivalent of 42,000 MT of CO_2)


Closed pit charcoal manufacturing


Activation kiln with waste heat boiler

Steam Activation

Jacobi Carbons has wholly-owned coconut shell activated carbon plants in both India and Sri Lanka. These facilities are the newest and most modern of their kind in the world. The rotary kilns used for steam activation of coconut shell charcoal operate virtually without the use of fossil fuels and the steam is produced exclusively from the waste heat of the process. Utilizing this advanced technology Jacobi has reduced CO_2 emissions as compared to traditional coconut shell activation techniques by over 30,000 MT per year.


Jacobi Carbons Lanka

The Facts

- Coconut shell carbon manufacturing has a net negative carbon footprint.
- In stark contrast to carbons made from coal, peat, or lignite, coconut shell is a sustainable and completely renewable resource.
- Jacobi is committed to the utilization of coconut shell charcoal manufactured by advanced techniques that dramatically reduce or minimize greenhouse gas emissions.
- Jacobi's activation facilities are designed to operate without the use of fossil fuels.

The Challenge

- We challenge any of our competitors to follow in our carbon footprints!