Wealth from Waste.

Production of Activated Carbon from Natural Sources.

Agricultural Waste Conversion

(Saw Dust, Coconut Shell, Rice Husk, Bamboo, Wood and Jute Sticks)





Introduction

Activated carbon is a carbonaceous, highly porous adsorptive medium that has a complex structure composed primarily of carbon atoms. The networks of pores in activated carbons are channels created within a rigid skeleton of disordered layers of carbon atoms, linked together by chemical bonds, stacked unevenly, creating a highly porous structure of nooks, crannies, cracks and crevices between the carbon layers.

Activated carbons are manufactured from coconut shell, peat, hard and soft wood, lignite coal, bituminous coal, olive pits and various carbonaceous specialty materials. There are a range of different activated charcoals, but only pharmaceutical grade powdered activated charcoal is suitable for use in clinical toxicology.

Activated carbon is extensively used in water and sewage treatment owing to its ability to remove particulate and dissolved impurities. It also eliminates certain organic impurities and removes chlorine from water. It is used in greenhouses and manufacturing industries for air purification and to remove toxic gases, odors, and harmful dust particles. Food and beverage processing, pharmaceutical & medical, and automotive industries are other application areas for the product.

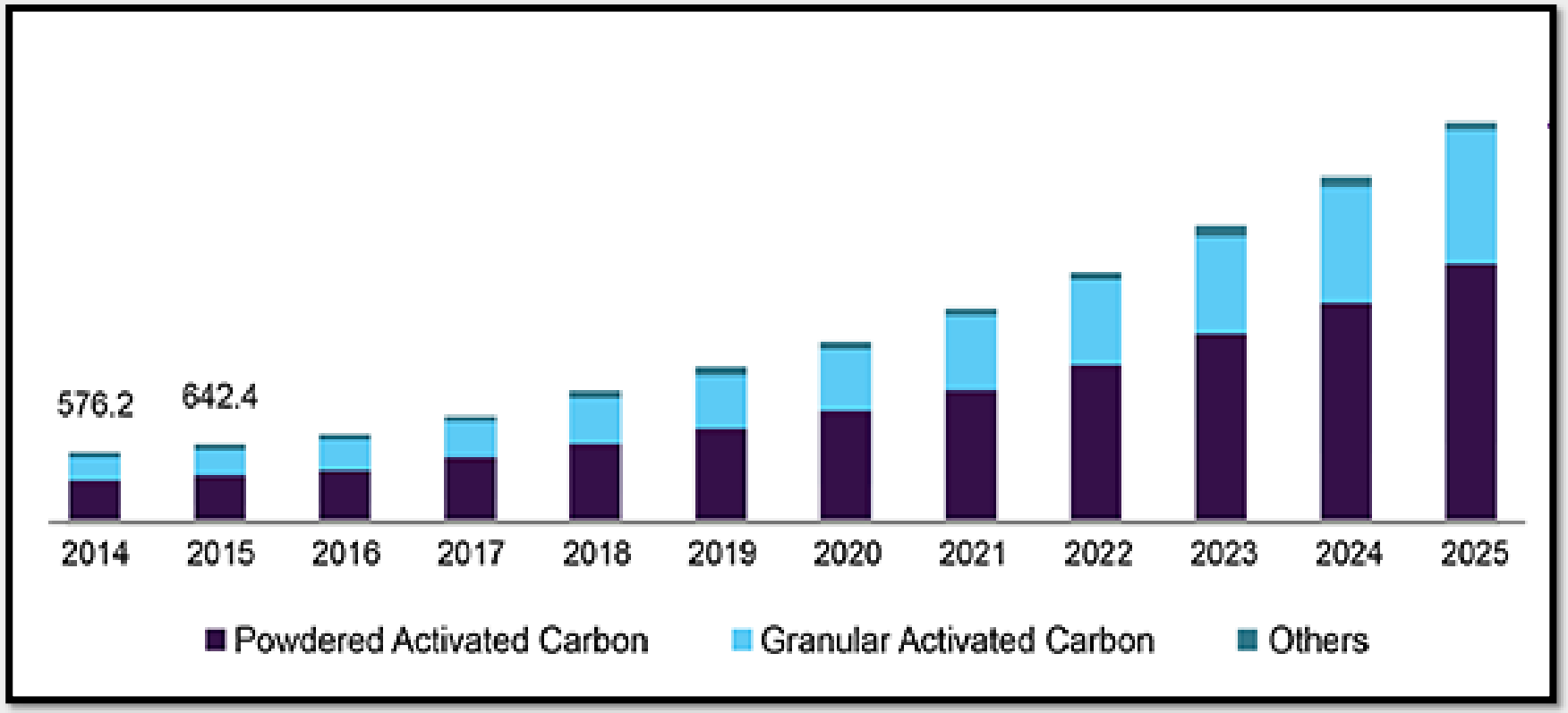
Activated Carbon Market Overview:

Global Activated Carbon Market is expected to garner 2,776 kilo tons and $5,129 million by 2022, registering a CAGR of 6.8% and 9.3% during the forecast period 2016 - 2020. Activated carbon is processed carbon with small, low-volume pores to increase surface area for chemical reactions and adsorption.

Increasing need of water treatment plants due to water scarcity and rising pollution is major driver of this market. Furthermore, strict environment regulations to control carbon and pollutants emission are increasing demand for activated carbon applications. Activated carbon sector is increasing with increase in industrialization and urbanization. Government is focusing to keep environment healthy in terms of safe water and air for living beings; moreover providing subsidies to industries such as power generation industry to control pollution.

High concerns about health issues by consuming contaminated water and air, by people, has increased the applications of activated carbon in purification, health & beverage processing, pharmaceutical & medical, automotive and many more. High price of raw material is restricting growth of market. Moreover, high pollution level, increasing per capita income, new product developments and launches will create potential opportunities for activated carbon market expansion in the upcoming years.

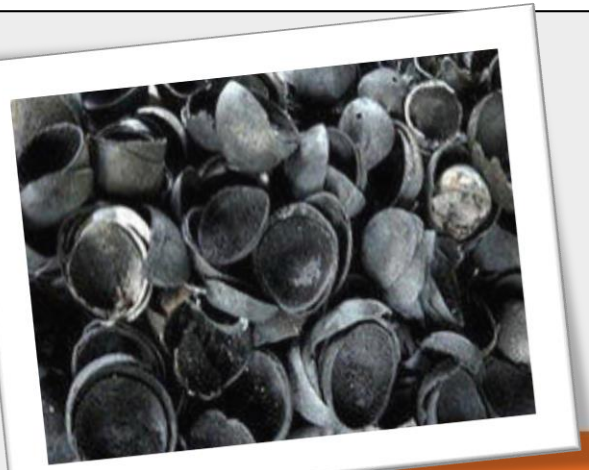
U.S. Activated Carbon Market Size, by Product, 2014-2025 (USD Million)



Rising awareness regarding the consumption of clean water amongst individuals, and increasing number of water treatment plants due to a provision of government subsidies for controlling carbon and mercury emission major factors expected to drive the growth of the global market over the forecast period. In addition, increasing applications of activated carbon in various industries such as water and air purification, health and beverage, pharmaceutical and medical, automotive industry is another important factor expected to fuel growth of the target market.

Based on product type, the activated carbon market is categorized into powdered activated carbon, granular activated carbon, and others. The others category refers to the remaining types of activated charcoal such as pelletized activated carbon. Demand for powdered activated carbon in industrial applications such as decolorization and deodorization operations in pharmaceutical industry is expected to act as a propellant to the market growth during the forecast period.

The global activated carbon market is highly consolidated. Key players operating in the global activated carbon market are Cabot Corporation, Calgon Carbon Corporation, Osaka Gas Chemicals Co., Ltd., and Haycarb PLC. Other players include ADA Carbon Solutions, Inc., CarboTech AC GmbH, Oxbow Activated Carbon, Donau Chemie AG, Carbon Activated Carbon, Evoqua Water Technologies, and Kureha Corporation. Market players have been profiled in terms of attributes such as company overview, financial overview, business strategies, and recent developments. The report also comprises a matrix of comparison of the top four players operating in the activated carbon market along with their market share analysis for 2017.



List of few Profitable Projects:

➢ Activated Carbon from Sawdust

Carbon is probably the most widely distributed element in nature. The term activated carbon, active carbon or active charcoal is usually applied to amorphous carbons processing higher absorption capacities that wood or animal charcoal. Industrial activated carbons in the form of pellets, granules or fine powder. And with many industrial application are new in the market under different trade-names. At present, in India there are about 21 to 22 units in which four units are in the state of Gujarat. Read more

➢ Activated Carbon from Coconut Shell

Activated carbon is an amorphous from of carbon which has been treated to produce a highly developed pore structure resulting in a very large internal surface area. It is pore structure which gives the activated carbon its ability to absorb gases and vapours from gaseous phase and dissolved or dispersed substances from liquid phase. Activated carbon can be manufactured from wide variety of raw material such as pinewood, charcoal, coconut shell, rice husk etc. The activated carbon is also used for the purification of air and water, refining of sugar and production of electrodes. Read more

➢ Activated Carbon from Rice Husk, Saw Dust & Coconut Shell

Carbon is probably the most widely distributed element in nature. Activated carbon from rice husk has been developed & finding wider uses. There is considerable scope in India for the manufacture of activated carbon from rice husk. The major use put by activated carbon is solution purification, such as the cleanup of cane, beet and corn sugar solution and for the removal of taste and odours from water suppliers, vegetable and animal fats and oils, alcoholic beverages, chemicals and pharmaceutical. Read more

➢ Activated Carbon from Bamboo

Activated carbon is a non-graphite form of carbon and is microcrystalline in nature. It is extensively used in various industries as a very good absorbent for odour or colour. A large variety of raw materials are available for the manufacture of activated carbon like rice husk, groundnut husk, coconut shell, saw dust, bagasse, wood and bamboo etc. The activated carbon produced in the country is catering to the need of vanaspati and solvent extraction plant, glucose and sugar industries, water treatment, chemicals, pharmaceuticals, synthetic rayons, electrochemical industries etc. Read more

➢ Activated Carbon (by Steam Activation Process)

The element carbon exists in three allotropic modifications, amorphous carbon, graphite and diamond, which are employed industrially. The major use of activated carbon is in solution purification, such as the cleanup of cane, beet, corn sugar solution and for removal of tastes and odors from water supplies, vegetable and animal fats and oils, alcoholic beverages, chemicals and pharmaceuticals etc. Looking these uses it can be concluded that there is very good scope for setting up activated carbon unit. Read more

➢ Charcoal from Coconut Shell

Charcoal and purity of any substances has now become a basic requirement of any chemical substance. So many products obtained by processing are dirty in colour and having so many impurities. This problem can be easily solved by adsorption of which carbon has become one of the most generally used materials for the purpose, animal matter. The resulting amorphous products include charcoal coke and petroleum coke. Granulated activated carbons are used for purification of gases or liquids and can be used in a vertical carbon packed column. It finds application in the preparations of pills and digestive tables. Read more

➢ Activated Carbon from Rice Husk/coconut Shell

The term activated carbon, active carbon or active charcoal is usually applied to amorphous carbons possessing higher absorption capacities than wood or animal charcoal. Industrial activated carbon in the forms of pellets, granules or fine powders, and with many other industrial applications is now in the market under different trade names. There has been a considerable amount of laboratory and pilot plant research in India on the production of active carbons. At present in India there are about 25 to 30 units, in which, four units are in Gujarat. Read more

➢ Activated Carbon from Saw Dust & Coconut Shell

Activated Carbon is a unique material because of the way it is filled with holes (voids, spaces, sites, pores,) whatever the size of molecules. It is that, although they are spaces of zero electron density, these pores possess intense vander wall forces (from the near proximity of carbon atoms). Activated carbon is a non-graphitic form of carbon, which could be produced by activation of any carbonaceous material such as coconut shells, bamboo, wood chips, sawdust, coal, lignite, paddy husk etc. The process of activation is carried out in two stages. Read more

➢ Activated Carbon from Wood

Activated carbon, also called activated charcoal, activated coal, or carbo activatus, is a form of carbon processed to be riddled with small, low-volume pores that increase the surface area available for adsorption or chemical reactions. Activated is sometimes substituted with active. Activated Carbon is a unique material because of the way it is filled with "holes" (voids, spaces, sites, pores,) whatever the size of molecules. Activated carbon is a non-graphitic form of carbon, which could be produced by activation of any carbonaceous material such as coconut shells, bamboo, wood chips, sawdust, coal, lignite, paddy husk etc. Read more

➢ Activated Carbon Powder from Jute Sticks

Activated carbon is a non-graphitic form of carbon, which could be produced by activation of any carbonaceous material such as jute sticks, coconut shells, bamboo, wood chips, sawdust, coal, lignite, paddy husk etc. Without adding any additives, chemicals or bonding agents, our Charcoal Powder is completely natural and odor-free. By reducing waste discharged into the environment, or rather, by making full use of our resources, makes Charcoal Powder environmental friendly, and the world, a better place to live. Read more

➢ Acid Washed Granulated Activated Carbon

The activated carbon is produced for use in ultra-pure water treatment systems requiring low conductivity and exceptionally high purity. This activated carbon is also specifically designed for the removal of heavy hydrocarbons from recovered condensate. The acid washing process removes soluble silica from the matrix of the activated carbon to prevent leaching into the condensate. Some of the benefits of Acid Wash carbon include Dechlorination of water, better taste, removal of bad odors, removal of color from water, removal of organic substances, etc.

Read more

Tags

#How_to_make_Activated_Charcoal, #Activated_Carbon_Plant, Activated Carbon Making Plant, #Manufacture_of_Activated_Charcoal, Activated Carbon Manufacturing, Activated Carbon Production Plant, Activated Carbon Manufacturing Plant, Activated Carbon Production, Production of Activated Carbon, Activated Carbon Manufacturing Project, Manufacturing of Activated Carbon, Activated Carbon Making, Activated Carbon Processing, Producing Activated Carbon, Project Report on Activated Carbon Plant, Activated Carbon Manufacture Plant, Process of Making Activated Carbon, Activated Carbon Production Process, Activated Carbon Processing Plant, Activated Carbon Manufacturing Business Plan, Activated Carbon Manufacturing Business, Activated Carbon Manufacturing Unit, Manufacture of Activated Carbon, Granular Activated Carbon Manufacturing Process, Granular Activated Carbon, Production of Granular Activated Carbon, Manufacturing Process of Granular Activated Carbon, Granular Activated Carbon Manufacture, Process for Producing Granular Activated Carbon, Granular Activated Carbon Processing, Granular Activated Carbon, #Granular_Activated_Carbon_Manufacturing_Plant, Plant for Granular Activated Carbon Production, Granular Activated Carbon (GAC), Activated Carbon Powder Plant, Activated Carbon Powder Production Plant, Activated Carbon Powder Production Process, Manufacturing Process of Activated Carbon Powder, Activated Carbon Powder Manufacturing Plant, Production of Activated Carbon Powder, Process of Manufacturing Coconut Shell Activated Carbon, Preparation of Activated Carbon from Coconut Shell, Production of Activated Carbon from Coconut Shell, How Coconut Shell Activated Carbon is Made, #Activated_Carbon_from_Coconut_Shell_Project_Report, Coconut Shell Activated Carbon Manufacture, Manufacture of Coconut Shell Activated Carbon, Production of Coconut Shell Charcoal, Manufacturing Process Coconut Shell Charcoal, Preparation of Coconut Shell Activated Carbon, #Activated_Carbon_Powder_from_Jute_Sticks, Charcoal from Jute Sticks, Jute Stick Charcoal Powder, Jute Sticks Charcoal Powder Making, Production of Activated Charcoal Powder from Jute Sticks, Jute Stick Charcoal Powder Production Project, #Production_of_Activated_Carbon_from_Wood, Wood Based Activated Carbon, Manufacturing Process of Activated Carbon From Wood,

Preparation of Activated Carbon from Wood, #Commercial_Production_of_Activated_Carbon_from_Wood, Process for Production of Activated Carbon from Wood, Process for Producing Activated Carbon from Wood, Activated Carbon From Bamboo, Production of Activated Carbon from Bamboo, Preparation of Bamboo Based Activated Carbon, Manufacturing Activated Carbon from Bamboo, How to Make Activated Charcoal from Bamboo, Preparation of Activated Carbon from Rice Husk, Production of Activated Carbon from Rice Husk, Manufacturing of Activated Carbon from Rice Husk, Project Report on Activated Carbon from Rice Husk, Activated Carbon from Rice Husk/Coconut Shell, Manufacture of Activated Carbon from Rice Husk, Business Plan for Production of Carbon from Rice Husk, Activated Carbon from Saw Dust, Preparation of Activated Carbon from Sawdust, Wealth from Waste, Production of Activated Carbon from Natural Sources, #Agricultural_Waste_Conversion_to_Activated_Carbon, Activated Carbon from Waste Materials, Activated Carbon from Waste, #Production_of_Activated_Carbon_from_Agricultural_Raw_Waste, Waste to Wealth, Preparation of Activated Carbon from Waste, Activated Carbon Preparation, Production of Activated Carbon From Industrial Bamboo Wastes, Production of Activated Carbon from Sawdust, Manufacturing Process of Activated Carbon from Sawdust, Business Plan for Manufacturing of Activated Carbon from Sawdust, Activated Carbon Production Project Ideas, Projects on Small Scale Industries, Small Scale Industries Projects Ideas, Activated Carbon from Saw Dust Based Small Scale Industries Projects, Project Profile on Small Scale Industries, How to Start Activated Carbon Powder Manufacturing Industry in India, Activated Carbon Powder Manufacturing Projects, Detailed Project Report on Activated Carbon Manufacturing Business, Project Report on Activated Carbon Manufacturing Business, Pre-Investment Feasibility Study on Activated Carbon Production, Techno-Economic feasibility study on Activated Carbon Manufacturing Business, Feasibility report on Activated Carbon Manufacturing Business, Free Project Profile on Activated Carbon Production Business, Project profile on Activated Carbon Manufacturing Project, Download free project profile on Activated Carbon Manufacturing Business

For more Projects and further details, visit at:

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Major Queries/Questions Answered in Our Report?

1. How has the industry performed so far and how will it perform in the coming years?
2. What is the Project Feasibility of the Plant?
3. What are the requirements of Working Capital for setting up the plant?
4. What is the structure of the industry and who are the key/major players?

5. What is the total project cost for setting up the plant?
6. What are the operating costs for setting up the plant?
7. What are the machinery and equipment requirements for setting up the plant?
8. Who are the Suppliers and Manufacturers of Plant & Machinery for setting up the plant?
9. What are the requirements of raw material for setting up the plant?

10. Who are the Suppliers and Manufacturers of Raw materials for setting up the plant?

11. What is the Manufacturing Process of the plant?

12. What is the total size of land required for setting up the plant?

13. What will be the income and expenditures for the plant?

14. What are the Projected Balance Sheets of the plant?

15. What are the requirement of utilities and overheads for setting up the plant?

16. What is the Built up Area Requirement and cost for setting up the plant?

17. What are the Personnel (Manpower) Requirements for setting up the plant?

18. What are Statistics of Import & Export for the Industry?

19. What is the time required to break-even?

20. What is the Break-Even Analysis of the plant?
21. What are the Project financials of the plant?
22. What are the Profitability Ratios of the plant?
23. What is the Sensitivity Analysis-Price/Volume of the plant?
24. What are the Projected Pay-Back Period and IRR of the plant?
25. What is the Process Flow Sheet Diagram of the plant?
26. What are the Market Opportunities for setting up the plant?
27. What is the Market Study and Assessment for setting up the plant?
28. What is the Plant Layout for setting up the plant?

Contact us

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