

## **Activated Carbon Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)**

Market Report | 2023-01-23 | 240 pages | Mordor Intelligence

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### **Report description:**

The global activated carbon market is expected to reach 1,745.95 kilotons by the end of this year and is projected to register a CAGR of over 3% during the forecast period.

In 2020, the activated carbon market did not face any significant decline. However, the demand was reduced, considering the temporary halt of activities in various end-user industries, such as metal extraction and others. Furthermore, in 2021, the demand for the market studied picked up the pace and is likely to grow at a significant rate in the coming years.

### **Key Highlights**

In the medium term, major factors driving the market are conformance to stringent environmental regulations in water treatment applications in the United States and augmenting prominence for air pollution control (especially mercury removal).

On the flip side, narrower markets, due to the increased costs of some grades of activated carbon, the threat of substitutes like silica gel, and the development of better opportunities, are expected to hinder the growth of the market.

Emerging applications in the medical and pharmaceutical sectors are likely to act as an opportunity for the market.

Asia-Pacific dominated the market across the world, with the largest consumption from the countries such as China and Japan.

### **Activated Carbon Market Trends**

#### **Increasing Demand for Water Treatment Applications**

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The usage of activated carbon is one of the most effective methods for the treatment of municipal/industrial wastewater. Activated carbon is normally used in granular form to remove a wide variety of contaminants, such as nonbiodegradable organic compounds, absorbable organic halogens, color compounds and dyestuffs, and pesticides.

Wastewater and ballast water treatment, groundwater remediation, surface impoundments, and cleanup of groundwater and accidental spills are other applications of activated carbon.

Activated carbon also helps in the removal of odor that occurs in wastewater plants, where biological activity creates hydrogen sulfide (H<sub>2</sub>S), ammonia (NH<sub>3</sub>), VOCs, etc.

Water treatment is a popular application of activated carbon. Most water treatment filters are made of granular activated carbon. It is used to remove organic-chemical substances and colorants and reduce trace substances, such as chemicals.

In addition, federal policy programs, including the Safe Drinking Water Act and the Clean Water Act coordinated by the Environmental Protection Agency (EPA), provide treatment and discharge regulations, funding programs, and frameworks for operating and applying innovative water and wastewater treatment technologies. Hence, this is further expected to boost the demand for activated carbons from the water treatment segment.

China has 10,113 water treatment plants that treat wastewater for 95% of municipalities and 30% of rural areas. Moreover, China plans to build or renovate 80,000 km of sewage collection pipeline networks and increase sewage treatment capacity by 20 million cubic meter/day between 2021-2025. In the 14th Five-year Plan, released in March 2021, China published new guidelines for wastewater reuse, which mandated raising the proportion of sewage that must be treated to reuse standards to 25% by 2025. In July 2021, Veolia enhanced the development of its water business in Japan by signing off on the operation of the Miyagi Water and Wastewater Concession Project. This concession contract is for 20 years of O&M and renewal works of eight treatment plants, with a total treatment capacity of over 900,000 m<sup>3</sup> per day.

Therefore, considering the aforementioned factors, the demand for activated carbons is expected to rise from the water treatment segment during the forecast period.

#### China to Dominate the Market in the Asia-Pacific Region

China is the largest activated carbon market in the world. Activated carbon is used widely in water treatment, food and beverage, healthcare, automotive industries, and industrial processing.

Increasing water requirements from the industrial sector and changing government regulations for the prevention of water pollution and control action plan have increased the demand for water treatment in recent years. Wastewater treatment is mainly used because of the coal, steel, and iron industries, which require fresh water for day-to-day activities.

According to the International Trade Administration, China plans to build or renovate 80,000 km of sewage collection pipeline networks and increase sewage treatment capacity by 20 million cubic meters/day between 2021 and 2025.

The OICA recorded production of automobiles in China to 26,082,220 units of passenger cars and light vehicles in 2021, up from 25,225,242 units in 2020. The growth in 2021 was 3%. Moreover, the CAAM estimates the production of the automobile is further likely to ascend with the growing demand from the passenger cars segment.

In addition, the demand for electric vehicles in China is anticipated to witness strong growth over the forecast period on account of the rapid development owing to the rising government initiatives, increasing number of manufacturing companies, and increasing charging infrastructure.

However, China, like many other economies, is facing an energy crisis, which is likely to limit the electric vehicle market in the country. In addition, as per the update in January 2022, China is expected to cut subsidies on new energy vehicles (NEVs), such as electric cars, by 30% in 2022 and withdraw them all together at the end of the year. This is projected to limit the sale of electric vehicles in the country. ?

The country has set targets for NEVs, including plug-in hybrids and hydrogen fuel cell vehicles, to make up 20% of auto sales by 2025. Global automakers, including General Motors Co, Toyota Motor Corp, Tesla Inc., and Volkswagen AG, are increasing their electric vehicle production in China, which is anticipated to benefit the market for electric vehicles, which may further fuel the

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activated carbon market during the forecast period.?

China has a recognized market for pharmaceuticals and is the fastest emerging market for activated carbons. The country has a large and diverse domestic drug industry, comprising around 5,000 manufacturers, of which many are small- or medium-sized. Hence, owing to the above-mentioned factors, China is likely to dominate the market in the Asia-Pacific region during the forecast period.

### Activated Carbon Market Competitor Analysis

The activated carbon market is partially consolidated, where the top-five players account for a major share of the global market. The major companies in the activated carbon market include (not in any particular order) Kuraray Co. Ltd, Cabot Corporation, Ingevity, Jacobi Carbons Group, and Haycarb (Pvt) Ltd, among other companies.

Additional Benefits:

The market estimate (ME) sheet in Excel format  
3 months of analyst support

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