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Global Carbon Black Production Process Capacity By Country

Today we want to talk about the global [carbon black](#) production process capacity by country. As you know, Carbon black is a versatile material that is used in a wide range of industries for different purposes. Here are some of the most common uses of carbon black:

-Rubber Industry: Carbon black is an essential component of rubber products such as tires, conveyor belts, hoses, and gaskets. It improves the durability, strength, and abrasion resistance of rubber products.

-Plastics Industry: Carbon black is used as a pigment and reinforcing agent in plastic products such as automotive parts, pipes, and packaging materials. It improves the color, UV stability, and strength of plastics.

-Ink and Coatings Industry: Carbon black is used as a black pigment in inks and coatings for printing, painting, and other applications. It provides deep, rich color and improves the UV stability and durability of the products.

-Construction Industry: Carbon black is used in the construction industry as a reinforcing agent in concrete, asphalt, and other building materials. It improves the strength, durability, and resistance to weathering of these materials.

-Battery Industry: Carbon black is used as a conductive agent in batteries, such as those used in electric vehicles. It improves the electrical conductivity and performance of the batteries.

-Electrical and Electronic Industry: Carbon black is used as a conductive additive in electronic devices, such as computer components and mobile phones. It improves the electrical conductivity and stability of the devices.

These are just a few examples of the many applications of carbon black in various industries. Carbon black's unique properties make it a valuable and versatile material for many different applications.

carbon black production process

The production process of carbon black typically involves the following steps:

-Feedstock preparation: The first step in the process is to prepare the feedstock, which is typically a heavy petroleum oil or coal tar. The feedstock is heated and treated to remove impurities and separate the heavier hydrocarbons.

-Furnace carbonization: The prepared feedstock is then introduced into a furnace where it is heated to high temperatures (above 2000°C) in the absence of air. This process is known as carbonization, and it causes the hydrocarbons in the feedstock to break down into carbon and hydrogen gases.

-Quenching and cooling: The carbon and hydrogen gases are then quickly cooled and quenched with water or oil to stop the carbonization process. This produces a fine black powder known as carbon black.

-Post-treatment: The carbon black is then treated with various chemicals to improve its properties for specific applications. For example, it may be oxidized to improve its dispersibility, or it may be surface-treated to improve its compatibility with different polymers.

-Pelletizing: In some cases, the carbon black is pelletized to make it easier to handle and transport. This involves compressing the powder into small pellets and adding a binding agent to hold them together.

The exact process for carbon black production can vary depending on the feedstock and the desired properties of the final product. However, the general process outlined above is the basic process used by most carbon black manufacturers.

global carbon black production capacity

According to a report by Grand View Research, the global carbon black production capacity was estimated at around 14.4 million metric tons in 2020. This capacity is expected to grow at a compound annual growth rate (CAGR) of 3.3% from 2021 to 2028, reaching a production capacity of 18.2 million metric tons by 2028.

Asia-Pacific is the largest consumer and producer of carbon black, with China being the largest market and accounting for over 50% of the global production capacity. Other major producers include the United States, India, Russia, Brazil, and Japan.

The demand for carbon black is driven by its wide range of applications in various industries, such as automotive, construction, and packaging. As these industries continue to grow and develop, the demand for carbon black is also expected to increase, driving the growth of the global production capacity in the coming years.

Carbon black is widely used in various industries such as tire manufacturing, plastics, printing inks, paints and coatings, and rubber goods. The increasing demand for carbon black from these industries is expected to drive the growth of the global carbon black production capacity in the coming years.

carbon black production by country

The production of carbon black is mainly concentrated in a few countries. Here is a list of the top carbon black-producing countries in the world as of 2021, according to Statista:

-China: The largest producer of carbon black in the world is China, which is producing over 40% of global production. The country's carbon black production capacity is mainly concentrated in the provinces of Shandong, Jiangsu, and Liaoning.

-United States: The United States is the second-largest producer of carbon black in the world. The country's major carbon black-producing states include Louisiana, Texas, and Ohio.

-India: India is the third-largest producer of carbon black in the world, accounting for around 7% of global production. The country's major carbon black-producing states include Gujarat, Maharashtra, and Tamil Nadu.

-Japan: Japan is another major producer of carbon black, accounting for around 5% of global production. The country's major carbon black-producing companies include Tokai Carbon, Mitsubishi Chemical, and Showa Denko.

-Russia: Russia is also a significant producer of carbon black, accounting for around 4% of global production. The country's major carbon black-producing companies include Omsk Carbon, Yaroslavl Carbon Black, and Kremenchug Carbon Black.

Other significant producers of carbon black include South Korea, Brazil, Iran, and Germany. However, the production capacity of these countries is relatively smaller compared to the top producers mentioned above.

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