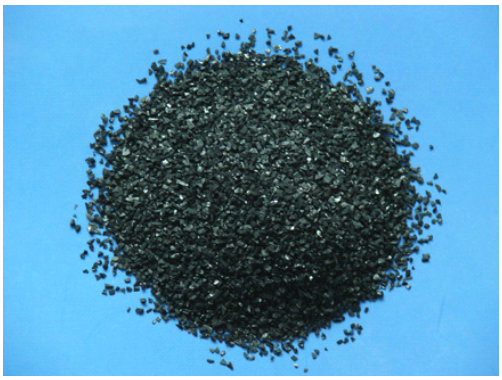
Activated carbon for industrial decolorization



Activated carbon (also called activated charcoal) is the more general term which includes carbon material mostly derived from charcoal.

Activated carbon is the common term used for a group of absorbing substances of crystalline form, having large internal pore structures that make the carbon more absorbent, Activated carbon is manufactured according to the Ostreijkos patents of 1900 and 1902.Every year, approximately one hundred fifty thousand metric tons of pulverized activated carbon are manufactured, together with one hundred fifty thousand metric tons of pellets/rods, Many different materials can be activated(wood, plastic, stone and synthetic materials) without actually turning them into carbon, and one can still get the same effect.

Activated carbon is the most popular and the cheapest material used in purification of alcohol, and steam-activated carbon is derived from natural raw materials. Much of activated carbon is regenerated (cleaning/desorption) and is used hundreds, or even thousands, of times.
Activated carbon technology:

These series of activated carbon in powder form are made from sawdust and activated charcoal, via chemical and physical method, under the process of after treatment.

Activated carbon characteristics:

These series of activated carbon with large surface area, developed micropore and mesopore structure, large volume adsorption, high rapid filtration etc.

Activated carbon using fields:

Widely used for liquid and gas phase, mainly applied for chemical industry, dyeing industry, pharmacy, food industry, environmental protection, electroplating etc. enviromental protection such as living and industrial watertreatment, removing dioxin, industrial tail gas purification, and decolorization, removingsmelling in electroplating industry.

Activated carbon datasheet

		Mesh	Fe%≤	Cl%≤	Pb%≤	PH	Soluble Matter In Acid%≤	Surface area M2/g	Toatl Pore volumecm3/g	Ash%≤	MB Value(mg/g)≥
Industrial Series	CX-608	200	0.35	0.5	0.01	4.0-11.0	-	～800	～0.78	-	120
	CX-609	200	0.35	0.5	0.01	4.0-11.0	-	～850	～0.82	-	135
	CX-610	200	0.35	0.5	0.01	4.0-11.0	-	～850	～0.84	-	150
	CX-611	200	0.20	0.4	0.01	4.0-11.0	-	～880	～0.86	-	165
	CX-612	200	0.15	0.35	0.01	4.0-11.0	-	～920	～0.88	-	180
	CX-613	200	0.15	0.35	0.01	4.0-11.0	-	～950	～0.95	-	195
	CX-614	200	0.15	0.20	0.01	4.0-11.0	-	～1000	～1.05	-	205
	CX-615	200	0.15	0.20	0.01	4.0-11.0	-	～1100	～1.10	-	210

Remarks:

We also could supply the specific quality activated carbon products according to the consumers' requirements.

Activated carbon, as viewed by an electron microscope Under an electron microscope, the high surface-area structures of activated carbon are revealed. Individual particles are intensely convoluted and display various kinds of porosity; there may be many areas where flat surfaces of graphite-like material run parallel to each other, separated by only a few nanometers or so. These micropores provide superb conditions for adsorption to occur, since adsorbing material can interact with many surfaces simultaneously. Tests of adsorption behaviour are usually done with nitrogen gas at 77 K under high vacuum, but in everyday terms activated carbon is perfectly capable of producing the equivalent, by adsorption from its environment, liquid water from steam at 100 °C and a pressure of 1/10,000 of an atmosphere.

Physically, activated carbon binds materials by van der Waals force or London dispersion force.

Activated carbon does not bind well to certain chemicals, including alcohols, glycols, strong acids and bases, metals and most inorganics, such as lithium, sodium, iron, lead, arsenic, fluorine, and boric acid.

Activated carbon does adsorb iodine very well and in fact the iodine number, mg/g, (ASTM D28 Standard Method test) is used as an indication of total surface area.

Activated carbon can be used as a substrate for the application of various chemicals to improve the adsorptive capacity for some inorganic (and problematic organic) compounds such as hydrogen sulfide (H_2S), ammonia (NH_3), formaldehyde (HCOH), radioisotopes iodine-131(^{131}I) and mercury (Hg). This property is known as chemisorption.