



KGC



KGC, focus on graphite and carbon

KAIHENG GRAPHITE CARBON

Company profile

Kaiheng Graphite Carbon (KGC), base on our Inner Mongolia factories and manufactures cooperate with us for many years, focus on producing and supplying various graphite and carbon products.

As an integrated enterprise, we also have an export company in Beijing as a window to the world, which authorized by Ministry of Commerce of People's Republic of China (MOFCOM) and got export license for graphite and carbon products.

Graphite and carbon products you can find at KGC include graphite and carbon electrodes, graphite rods and blocks, flake graphite, c-c composite materials, graphite materials for lithium-ion battery.....which are applied in metal industry, semi conductor industry, molding, non-ferrous metallurgy, EDM processing and aerospace..... We provide services of machining, graphitization, purification and other customizations as well.



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Product introduction

Graphite Electrode



Graphite electrode is a major conduction materials used in the electric smelting industry, which has the properties of superior electric conductivity, thermal conductivity, high mechanical strength, oxidation and corrosion resistance in high temperature.

According to the power and the current capacity, adopt the different raw materials and production craft, KGC have three grades of graphite electrode: RP graphite electrode, HP graphite electrode, UHP graphite electrode. According to the diameters, it has 75mm-700mm different specifications. We also process according to clients' requirements. Besides, we also supply carbon electrodes.

Applications:

1. Used in EAF(for smelting steel);
2. Used in submerged-arc furnace;
3. electric resistance furnace;
4. aluminum and steel production;
5. electrolysis of salt melts;
6. electrolytic decomposition of chemical compounds;
7. thermal deposition reactions;
8. arc welding;
9. measuring instruments.



Product introduction

Graphite Rod/Block

According to process, we divide graphite rod and block we have into extruded, vibrated, molded, and isostatic, which have different characteristics and have different applications. After been purified, purity could be 99.99% or higher.



Extruded graphite:

Mainly in round shape, and also squares could be machined.

Applications:

1. Used to machine graphite crucibles, boats/dishes, molds, rotor and shaft, launder
2. Used to structural material in high temperature furnace
3. Used to blank materials for machined graphite parts in environment of strong acid, strong alkali and strong erosion
4. Used to machine graphite electrodes.

Molded Graphite

Molded graphite are mainly used to machine graphite molds and other machined graphite parts with higher requirements.

The main applications are as following:

1. Used to machine graphite molds
2. Used as EDM graphite electrode and mold.
3. Used as structural materials or parts of high. temperature furnace.

Isostatic Graphite

As a special graphite and has different characteristics comparing with extruded and molded graphite, isostatic has wildly applications as following:

1. Used in electronic, photovoltaic industries,;
2. Used in precision casting industries;
3. Used in precision machining;
4. Used to machine graphite crucible for melting rare metals;
5. Used to machine analysis container in labs;
6. Used in hard alloy industry.



Product introduction

Flake Graphite

Flake graphite is a naturally occurring form of graphite. Its properties include high thermal and electric conductivity, and low spring-back (excellent molding characteristics). As a widely used material, applications of flake graphite are as following:



1. Powder Metallurgy;
2. Fuel Cell Bipolar Plates;
3. Coatings;
4. Thermal Materials;
5. Friction Moderators;
6. Electrically Conductive Materials;
7. Refractories;
8. General Lubricant;
9. Pencils;
10. Gaskets;
11. Rubber Compound.

Expandable Graphite

Expandable flake graphite is an intercalation compound of graphite, which exfoliates when heated. This material is manufactured by treating flake graphite with various intercalation reagents. These reagents migrate between the grapheme layers of a graphite crystal and remain as stable species. If exposed to a rapid increase in temperature, the decomposition of the intercalants develops enough force to push apart the graphene layers resulting in an increase in the volume of the graphite of up to 350 times, which we called it chunk graphite, with a lowering of bulk density and approximately a 10-fold increase in surface area.



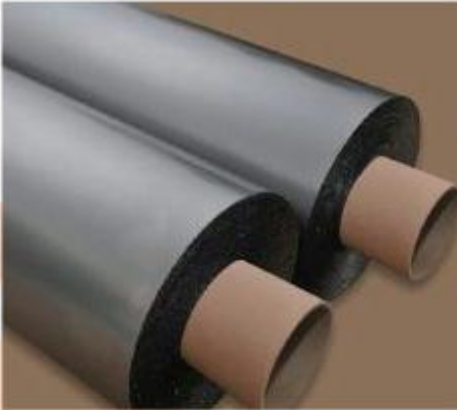
applications:

1. Used to make seals, gasting;
2. Used in batteries materials field;
3. Used as environment protection materials;
4. Used in medical field;
5. Fire retardant materials;
6. Used in grapheme field.



Product introduction

Graphite Foil and Felt



Flexible Graphite Foil & Sheet Flexible Graphite Foil & Sheet is made from exfoliated graphite flake and is produced through an extensive calendaring process to give a thin flexible foil with no binder or resins, has excellent properties such as thermal stability, high and low temperature resistance, impermeability and corrosion resistance, etc.

Applications:

1. Gaskets materials (automotive, petroleum and chemical, paper, and nuclear industries);
2. Thermal barrier;
3. Fuel cell industry for bipolar plates;
4. Excellent for sealing high temperature valves, shafts and flanges;
5. Excellent linings and protective layer for vessels containing hot or corrosive fluids.



Product introduction

C-C composite materials



Based on the whole carbon felt, carbon fiber fabric using vapor deposition process to obtain the carbon carbon composite, with high strength, low specific gravity, expansion coefficient, high temperature resistance, corrosion resistance, abrasion resistance, thermal shock resistance, it is used in aerospace, aviation, metallurgy, chemicals, machinery and other fields. Carbon composite material can be processed into various shaped pieces, such as vacuum furnace blower carbon /carbon blade, a variety of screws, nuts, pipe, plate, bar, tray, rack, also can be used as thermal insulation material, play superior performance under the condition of vacuum. C-C composite material has low bulk density, high strength, low thermal conductivity, acid-resistant, alkali-resistant, anti-friction, is the best material for resisting high temperature, could be used widely in future.

Applications:

1. Aerospace;
2. Automotive;
3. Metallurgy;
4. Chemicals;
5. Military Industries;
6. Heat Exchanger.



Product introduction

Cokes

Petroleum Coke



Petroleum coke (pet coke or petcoke) is a carbonaceous solid delivered from oil refinery coker units or other cracking processes. The coke we supply can either be fuel grade (high in sulfur and metals) or anode grade (low in sulfur and metals). The further processing of green coke by calcining in a rotary kiln removes residual volatile hydrocarbons from the coke. The calcined petroleum coke can be further processed in an anode baking oven in order to produce anode coke of the desired shape and physical properties. The anodes are mainly used in the aluminium and steel industry.

Applications:

1. As fuel
2. As raw materials for calcined petroleum coke and graphitized petroleum coke

Calcined petroleum coke



Calcined petroleum coke, the further processing of green coke by calcining in a rotary kiln removes residual volatile hydrocarbons from the coke. The thermal processing of residual oil. Green petroleum coke is calcined at temperatures from 1300 - 1400°C, which removes virtually all residual hydrocarbons and moisture, ensuring exceptional purity. Petroleum coke is used in applications where high-quality, non-graphitic carbons are required, including foundry products, wear moderators for PTFE compounds, rubber compounds, reducing reagents, ceramic packing media, oxygen exclusion from molten metals, manufactured carbon shapes, alloys, cathodic backfill, drilling additives, case hardening, seals, mechanical carbons and flooring.

Applications:

1. Used to make anode coke;
2. Used in aluminium and steel industry;
3. Used to make car and airplane breakers.

Graphitized Petroleum Coke



High-purity graphitized petroleum coke is made from high quality petroleum coke under a temperature of 2,500-3,500° C. As a high-purity carbon material, it has characteristics of high fixed carbon content, low sulfur, low ash, low porosity etc. It can be used to produce high quality steel, cast iron and alloy. It can also be used in plastic and rubber as an additive. We can supply different grades of Graphitized Petroleum Coke in the quantity 2,000 tons per month, specifications listed below:

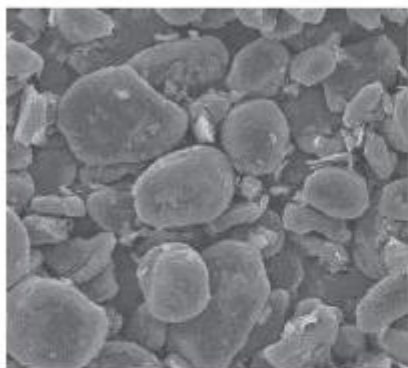
Applications:

1. carbon raiser (Recarburizer);
2. Use to produce high quality steel;
3. Used in cast iron and alloy;
4. Used in plastic and rubber as an additive



Product introduction

Graphite Materials For Battery



Using the super-high temperature continuous graphitization technology, we make the innovation in subversion of the traditional production technology and significantly reduce the production cost, improve the various performance of the product and speed up the traditional process of this industry's energy saving and emission reduction. the annual output of lithium battery synthetic graphite cathode materials 5000 metric tons. It is available in primary, secondary and purified forms.

Applications:

1. Lithium-ion batteries;
2. Foundry;
3. Electrical carbons;
4. Fuel cell bipolar plates;
5. Coatings;
6. Electrolytic processes;
8. Corrosion products;
9. Conductive fillers;
10. Rubber and plastic compounds;
11. Drilling.



From raw materials inspection, to produce process control, until shipment, all graphite and carbon products from KGC are treated strictly.

Quality and service



Service

Purification



Machining



Graphitization



Factories

XinYuan Carbon



XinYuan Carbon Co., Ltd.(XYC), passed the authorization and the audit of ISO9001 Quality System, as one of our factories and an important basement in producing graphite electrode, fine particle size graphite rod and block, anode block, carbon block, carburant, scraps, XYC also could produce more than two times impregnation electrode and rod as clients' require...

TianHe Graphitization



TianHe Graphitization Co., Ltd. , also as one of our factories and a basement to service our clients from all over the world, was found at 2002, has two lengthwise graphitization furnace in two workshops, total area is 20,000 square meters, total annual output could reach at 5,000 metric tons. With modified furnaces, not only make the output increased, but also make the power consumption saved at 20% percent.

We provide graphitization service from all over the world, any carbon electrodes, rods, blocks, diameter rang from 30mm to 1500mm and length rang from 50mm to 3300mm could be graphitized here.

JiMei New Carbon



JiMei New Carbon Co., Ltd., focus on produce high purity natural and synthetic graphite powder for Lithium-ion batteries, has passed the authorization and the audit of ISO9001 Quality System , could produce 300 metric tons per month. After high temperature purifying, impurity of powders could be low to 10ppm, as we said fixed carbon could be 99.99% to 99.9999%.

In order to meet the increasing demands from domestic and oversee, all the facilities and equipment are being modified, and ultimate production will be 5000-6000 metric tons per year.



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