WEIZHI PRECISION

EXTREME ARTISTIC TECHNO SOUND MAKER

Graphite Introduction

Introduction to graphite materials:

Graphite is one of the crystal minerals for the carbon element and is a non-metal mineral that can withstand high temperature, conduct electricity, conduct heat, lubricate, is highly flexible and anti-corrosive.

The melting point for graphite is 3850 and burning point is 4250 , much higher than the high-temperature king tungsten. At a high temperature, graphite does not soften and the intensity increases instead. At 2520 , its tensile strength is one fold that at a room temperature.

Graphite is a light and highly conductive material:

The conductivity of graphite is not inferior to metals and is actually outstanding with the resistance between 10-3 and 10-4Ωm.

It can be used to produce electrodes, carbon brushes, carbon tubes, and carbon rods, especially electric brushes of metal-like graphite.

Graphite intercalation compounds (G.I.C), e.g. GIC with NNO3, have conductivity that can easily surpass copper.

Graphite is a multi-porous material:

The reason that graphite carries the physical and chemical properties mentioned in the foregoing is because graphite comprises a special atomic structure. The intercalation structure of graphite mainly consists of molecular chains between layers and the interconnection is loose so gaps result. The gaps are inter-connective and the porous rate is as high as over 30% and individually by 50%.

Introduction to graphite and vibration:

All composites of graphite are exactly the same as those of diamond except that they have different atomic arrangements.

The atomic arrangement for diamond is hexagonal and very dense, which is why diamond has extremely high hardness and symbolizes long-lastingness.

On the other hand, the atoms of graphic, though possessing the hardness like that of diamond, are very

loose in composition. The atomic arrangement is row by row. This loose structure results in the dense and intricate micro gaps all over graphite materials.
Highly rigid atoms can rapidly conduct vibrations
Loose structure can effectively consume vibration energy and transform dynamics to thermal power quickly.

Why chemical compound graphite?

Chemical compound tuning is the most important tuning process for graphite blocks. Although pure and unprocessed graphite features cleanness and rapidness when used in stereos, this accordingly results in dry sounds that are not smooth enough in quality. Therefore, we sought ways for improvement and finally decided to choose compounds with good chemical stability as the soaking agent. The fact that there are many gaps existing between layers of graphite and are inter-connected, the crystal grid and gaps can absorb some elements and compounds. When foreign substances are inserted in the graphite intercalation, many new functions and features, like softness, friction tolerance, unit load, high conductivity, and ability to inflate will be generated.
After actually listening to it and experiments many times, graphite blocks soaked in adequate compounds are found to have significant changes in the sound. The original dry sound quality becomes more flexible and elastic and the extensiveness is even more outstanding with tuning by addition of compounds.

How to determine whether graphite has been processed through chemical compound tuning?

Pure graphite without compound soaking processing at all will appear to be silver gray, the original color of pure graphite. However, graphite blocks that have gone through the chemical compound tuning process will appear to be shining pure black.

Pre-soak processing for graphite:

Because graphite can absorb water vapor in the air very easily, do not clean the pollutants on its surface before soaking. Instead, the graphite work piece must be baked for a certain period of time at usually over100 so that the water and not pure substances inside the graphite work piece can be eliminated under the high

temperature. Otherwise, it will be difficult for the compound agent to enter the gaps, which accordingly will affect the tuning quality.

Introduction to the difference in graphite quality:

The following are some examples of primary factors that affect the quality of graphite,
Density, openness, particles, diameter, penetration, hardness, bending strength, etc.
Those mentioned in the foregoing concern production complexity and hence are the truly important factors that decide the quality and price of graphite.
The production level in each country is different and hence will affect the quality of graphite.
Therefore, we spent cost several folds ordinary graphite and chose top-grade German graphite, whose compressive strength is also more than 10 folds that of ordinary graphite.

Introduction to graphite isolation feet :

graphite isolation feet is suitable to be used at the bottom of CD, amplifier, and horns, among other playing devices as a pad.
It will produce excellent effect because chemical compound graphite raw material is a special material that can effectively minimize disturbance at low frequency and vibrations caused by the devices as well as help devices to restore their original transparency.
The weight capacity of the graphite blocks manufactured by our company is 100kg per square centimeter.
Current models and horns on the market are 200 to 300kg in weight at most and hence can all be carried by this product.