

HP Graphite Electrode

Port: Tianjin Port

Packing: Wooden Case

Delivery time: 5-7days

Minimum order quantity: 5tons

Supply Ability: 5000 tons/month

High-Power (HP) Graphite Electrode

HP graphite electrodes support a working current density of 18 - 25 A/cm². They are widely applied in conventional electric arc furnaces for steelmaking, silicon smelting and yellow phosphorus production.

Manufacturing & Core Characteristics of Artificial Graphite Electrodes

Artificial graphite electrodes are manufactured from high-quality low-ash raw materials, including petroleum coke, needle coke and coal tar pitch. The complete production process covers calcination, batching, kneading, forming, baking, pressure impregnation, high-temperature graphitization and professional CNC precision machining.

Benefiting from refined production technology, the finished electrodes feature low resistivity, excellent electrical conductivity, low ash content, dense internal structure, superior oxidation resistance and high mechanical strength. They serve as the optimal conductive medium for electric arc furnaces (EAF), ladle furnaces (LF) and submerged arc furnaces (SAF).

性能 Properties		单位 Unit	石墨电极公称直径 Nominal Diameter Of Electrode			
			UHP		HP	RP
			300-600 mm	650-800m m	300-800mm	300-800mm
电阻率 Electric resistivity	电 极 Electrode	μΩ.m	4.8-5.8	4.6-5.8	5.8-6.6	7.8-8.8
	接头 Nipple		3.8-4.5	3.8-4.5	4.2-5.0	5.0-6.5
抗折强度 Flexural strength	电 极 Electrode	Mpa	10.0-14.0	10.0-14.0	10.0-13.0	7.0-12.0
	接头 Nipple		20.0-26.0	22.0-26.0	18.0-22.0	15.0-20.0
弹性模量 Young's	电 极 Electrode	Gpa	9.0-13.0	10.0-14.0	8.0-12.0	7.0-9.3

modulus	接头 Nipple		15.0-18.0	15.0-18.0	14.0-16.0	12.0-14.0
体积密度 Bulk density	电 极 Electrode	≥g/cm ³	1.68-1.74	1.70-1.74	1.62-1.66	1.53-1.56
	接头 Nipple		1.77-1.82	1.78-1.84	1.74-1.80	1.70-1.74
热膨胀系数 CTE(100-600℃)	电 极 Electrode	×10 ⁻⁶ /℃	1.1-1.4	1.1-1.4	1.6-1.9	2.2-2.6
	接头 Nipple		0.9-1.2	0.9-1.2	1.1-1.4	2.0-2.5
灰分 Ash			0.3	0.3	0.3	0.5

Storage of graphite electrodes

1.电极应贮藏在清洁、干燥的地方；暂时不使用的电极与接头，不要将包装物去掉，要防止灰尘、杂物落到螺纹上或电极孔内，影响产品对接精度。

The electrodes should be put in a clean and dry place;do not remove the packaging before use so as to prevent the dusts and debris from dropping onto the threads or into the electrode socket and thus affect the precision of the electrode connection.

2.露天场地堆放的电极，一定要用防雨篷布盖好。

The electrodes stored in the open area must be covered with a rain-proof tarpaulin.

3.电极在库房内贮存要摆放整齐，电极垛两侧要垫好，以防滑垛。

The electrodes should be stored in the storehouse neatly.the both sides of the electrodes should be well stacked to prevent from stack sliding.

4.散装电极的堆放高度通常不超过 2.8 米，箱装电极的层高不宜超过 4 层。

The stacking height of the scattered electrodes should not exceed 2.8 meters,while the electrodes packed in the boxed should not exceed 4 layers.

5.存放接头的场所温度不宜过高，以防沥青质的接头栓熔化。

The temperature of the storage places of nipple should not be too high so as to prevent melting of the asphalt nipple bolt.

Transportation of graphite electrodes

1.石墨电极在长途运输中要加盖防雨篷布

Cover a rain-proof tarpaulin on the graphite electrodes in the course of long-distance transportation.

2.用起重机械吊卸木箱包装的电极时，必须使用钢丝绳，不是直接勾住电极的钢包装带进行吊卸。

It is important to use a wire rope when lifting the wooden-packaged electrodes with a lifting crane.it is forbidden to lift the electrodes with the steel packaging belts on the wooden-packaged.

3.为保护电极端面和螺纹，不得直接用铁钩钩挂电极孔吊运电极。

For the purpose of protecting the electrodes end and threads,it is not allowed to lift an electrode with a grappling iron hooking the electrode socket.

4.装卸接头箱子时，应轻拿轻放，以防损伤螺纹。

Put slightly when loading and unloading the nipple box so as to prevent damage to the threads.

Packing

Graphite electrode is packaged by wooden cages and nipple is packaged by wooden boxes.graphite electrode and nipple can be packaged together according to the requirements of the customers.the products are protected by waterproof and dustproof plastic inside and fixed by steel bands,fit for land transportation and sea transportation .