



**河北赫源新材料科技有限公司**  
Hebei Heyuan New Material Technology Co., Ltd

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Heyuan new material

**HEYUAN NEW MATERIAL**

**赫源新材料**



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河北赫源新材料科技有限公司位于河北省邯郸市临漳县碳素工业园区，占地面积36000平方米，是一家具有三十多年经验的专业生产石墨产品的制造商，公司拥有先进的生产设备，加工能力、规模和配套设施达到国内先进水平。

我公司技术力量雄厚，拥有一支长期稳定的从制造到检测完美配合的生产队伍从而确保了产品质量上乘。我公司产品品类齐全，主要产品有：普通功率石墨电极(75mm-1200mm)，高功率石墨电极(200mm-700mm)，超高功率石墨电极(300mm-700mm)，炉头方块电极、石墨粉、石墨异型件、煅后石油焦、石墨石油焦、增碳剂、特种石墨制品及根据客户需求定制的碳素产品等。

依靠科技进步，加快技术更新，强化科学管理，奉行“用户至上，信誉第一”的宗旨，是我公司不断扩大市场的最大优势，年综合生产能力达到30000吨，公司产品畅销俄罗斯、伊朗、英国、巴基斯坦、韩国、中东等二十余个国家和地区。

我们热忱欢迎海内外各界宾朋及新老朋友前来进行经济技术合作与贸易往来。

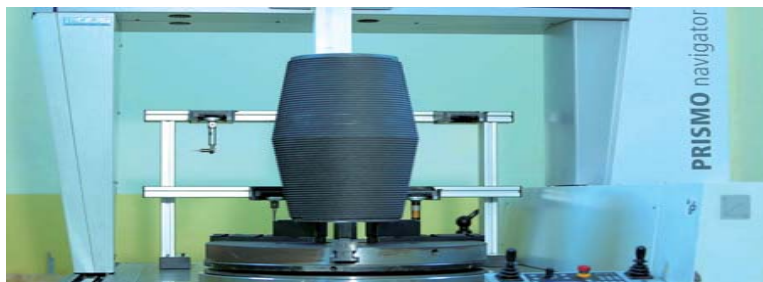
Hebei Heyuan New Material Technology Co., Ltd is a manufacturer specialized in producing the graphite products with more than 30 years experience, located at carbon industrial zone, Linzhang County, Handan city, Hebei province, in northern of China, covering an area of 36000 square meters, equipped with advanced producing equipments and facilities. The processing capacity, scale and suiting equipments reached to the domestic advanced level.

The company has strong technical strength, has a long-term stability from manufacture to inspection perfectly with the production team, to guarantee the high quality products, it has the full range of carbon products, the main products are: ordinary power (RP) graphite electrode (75mm-1200mm), high power (HP) graphite electrode (200mm-700mm), ultra high power (UHP) graphite electrode (300mm-700mm), graphite powder, graphite amorphous products, calcined petroleum coke (CPC), graphitized petroleum coke (GPC), carburant, special graphite products and customized carbon products, etc.

Relying on the progress of science and technology, speeding up technological renewal, strengthening scientific management, and adhering to the principle of “customer first, reputation first”, the company continues to expand the market share. The annual comprehensive production capacity reaches to 30,000 ton, and products have been sold to more than 20 countries and regions, such as: Russia, Iran, Pakistan, South Korea, Middle East.

We warmly welcome guests and friends from home and abroad, new customers and old customers come to economic and technological cooperation, trade contacts.

# W 车间、设备 Workshop and equipment



# G 石墨电极 Graphite electrode



# 其他产品 Other products



煅后石油焦  
Calcined Petroleum Coke



石墨粉  
Graphite Powder



接头  
Nipples



碳电极  
Carbon Electrode



石墨化石油焦  
Graphitized Petroleum Coke



石墨碎  
GE Pieces



石墨方  
Graphite Block



预焙阳极  
Pre-baked Carbon Anode



阴极炭块  
Cathode Carbon Block



毛坯料  
Raw Material



异形件  
Special Shaped Parts



异形件  
Special Shaped Parts

## 石墨电极尺寸和偏差 Graphite Electrode Size&Tolerance

名称 Name		电极直径 Electrode diameter		电极长度 Electrode length	
直径 x 长度 Diameter x length		最大 Maximum	最小 Minimum	最大 Maximum	
inch	mm	mm	mm	mm	mm
14 × 60	350 × 1500	357	352	1550	1400
14 × 72	350 × 1800			1875	1700
14 × 96	350 × 2400			2475	2275
16 × 60	400 × 1500	409	403	1550	1400
16 × 72	400 × 1800			1875	1700
16 × 96	400 × 2400			2475	2275
18 × 72	450 × 1800	460	454	1875	1700
18 × 96	450 × 2400			2475	2275
18 × 110	450 × 2700			2850	2550
20 × 72	500 × 1800	511	505	1875	1700
20 × 84	500 × 2100			2175	1975
20 × 96	500 × 2400			2475	2275
20 × 110	500 × 2700			2850	2550
22 × 84	550 × 2100			562	556
22 × 96	550 × 2400	2475	2275		
24 × 84	600 × 2100	613	607	2175	1975
24 × 96	600 × 2400			2475	2275
24 × 110	600 × 2700			2850	2550
26 × 110	650 × 2700	663	657	2850	2550
28 × 110	700 × 2700	714	708	2850	2550

## 石墨电极参考工作电流 Suggested Graphite Electrode Operation Current Capacity

公称直径 Nominal Diameter		允许电流负荷(A) Operation Current (Ampere)		
inch	mm	普通功率石墨电极 RP Graphite Electrode	高功率石墨电极 HP Graphite Electrode	超功率石墨电极 UHP Graphite Electrode
3	φ 75	1300-2000	—	—
4	φ 100	1800-3000	—	—
5	φ 130	2800-4200	—	—
6	φ 150	4000-5000	—	—
8	φ 200	4800-9000	6000-9000	—
10	φ 250	8000-12000	9000-14000	8100-12200
12	φ 300	11000-16000	14500-18500	15000-22000
14	φ 350	15000-22000	19000-28000	20000-30000
16	φ 400	20000-28000	23000-35000	25000-40000
18	φ 450	24000-34000	30000-42000	32000-45000
20	φ 500	28000-42000	35000-50000	38000-55000
22	φ 550	31000-45000	35000-55000	42000-66000
24	φ 600	32000-46000	40000-62000	60000-90000
26	φ 650	35000-48000	45000-72000	60000-90000
28	φ 700	39000-49000	48000-75000	70000-120000

注：在电弧炉上使用，电流负荷建议减少10%；在精炼炉上使用，电流负荷建议增加10%  
Note: On EAF, the current is suggested to be reduced by 10%; On LF, it might be increased by 10%.

## P 超高功率石墨电极理化指标 Physico-chemical Specifications of UHP Graphite Electrode

项目 Items	单位 Unit	公称直径 Diameter (mm)							
		φ 250-φ 400		φ 450-φ 500		φ 550-φ 600		φ 650-φ 700	
		典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value
		φ 10-16 Inch	φ 18-20 Inch	φ 22-24 Inch	φ 26-28 Inch				
电阻率 Specific Resistance ≤	电极 Electrode	μΩ·m	6.2	5.8	5.5	5.0	5.0	5.0	5.0
	接头 Nipple		5.0	4.5	3.8	3.5	3.5	3.5	
抗折强度 Bending Strength ≥	电极 Electrode	MPa	11.0	11.0	11.0	11.0	11.0	11.0	11.0
	接头 Nipple		18.0	18.0	20.0	20.0	20.0	20.0	
弹性模量 Young's Modulus ≤	电极 Electrode	GPa	14.0	14.0	14.0	14.0	14.0	14.0	14.0
	接头 Nipple		18.0	18.0	22.0	22.0	22.0	22.0	
体积密度 Bulk Density ≥	电极 Electrode	g/cm <sup>3</sup>	1.69	1.70	1.72	1.75	1.75	1.75	1.75
	接头 Nipple		1.78	1.82	1.82	1.85	1.85	1.85	
热膨胀系数 ≤ (100℃-600℃) CTE	电极 Electrode	X10 -6/℃	1.5	1.5	1.4	1.4	1.4	1.4	1.4
	接头 Nipple		1.4	1.4	1.2	1.2	1.2	1.2	
灰分 Ash Content ≤	%		0.3	0.3	0.3	0.3	0.3	0.3	0.3

注：灰分为参考指标  
Note: Ash content is only for reference

## P 高功率石墨电极理化指标 Physico-chemical Specifications of HP Graphite Electrode

项目 Items	单位 Unit	公称直径 Diameter (mm)							
		φ 200-φ 300		φ 350-φ 400		φ 450-φ 500		φ 550-φ 700	
		典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value	典型值 Typical Value
		φ 8-16 Inch	φ 14-16 Inch	φ 18-20 Inch	φ 22-28 Inch				
电阻率 Specific Resistance ≤	电极 Electrode	μΩ·m	6.6	6.5	6.3	6.0	6.0	6.0	6.0
	接头 Nipple		5.5	5.2	5.0	4.8	4.8	4.8	4.8
抗折强度 Bending Strength ≥	电极 Electrode	MPa	10.0	10.5	10.5	10.5	10.5	10.5	10.5
	接头 Nipple		16.0	18.0	18.0	18.0	18.0	18.0	18.0
弹性模量 Young's Modulus ≤	电极 Electrode	GPa	12.0	14.0	14.0	14.0	14.0	14.0	14.0
	接头 Nipple		16.0	18.0	18.0	18.0	18.0	18.0	18.0
体积密度 Bulk Density ≥	电极 Electrode	g/cm <sup>3</sup>	1.68	1.70	1.72	1.72	1.72	1.72	1.72
	接头 Nipple		1.72	1.75	1.76	1.80	1.80	1.80	1.80
热膨胀系数 ≤ (100℃-600℃) CTE	电极 Electrode	X10 -6/℃	2.4	2.2	2.2	2.2	2.2	2.2	2.2
	接头 Nipple		2.2	1.63	1.6	1.6	1.6	1.6	1.6
灰分 Ash Content ≤	%		0.3	0.3	0.3	0.3	0.3	0.3	0.3

注：灰分为参考指标  
Note: Ash content is only for reference

## P 普通功率石墨电极理化指标 Physico-chemical Specifications of RP Graphite Electrode

项目 Items	单位 Unit	公称直径 Diameter (mm)											
		φ75-φ125	φ150-φ200	典型值 Typical Value	φ250-φ300	典型值 Typical Value	φ350	典型值 Typical Value	φ400-φ500	典型值 Typical Value	φ550-φ700	典型值 Typical Value	
		φ3-5 Inch	φ6-8 Inch	φ10-12 Inch	φ14 Inch	φ16-20 Inch	φ22-28 Inch						
电阻率 Specific Resistance ≤	电极 Electrode	μΩ·m	9.0	8.7	8.0	8.5	8.0	8.3	8.0	8.1	8.0	8.0	8.0
	接头 Nipple	μΩ·m	6.8	6.6	5.8	6.4	5.8	6.2	5.8	5.9	5.8	5.8	5.8
抗折强度 Bending Strength ≥	电极 Electrode	MPa	10.0	10.0		7.8		7.0		6.8		6.5	
	接头 Nipple	MPa	14.0	14.0		15.0		15.0		15.0		15.0	
弹性模量 Young's Modulus ≤	电极 Electrode	GPa	9.3	9.3		9.3		9.3		9.3		9.0	
	接头 Nipple	GPa	14.0	14.0		14.0		14.0		14.0		14.0	
体积密度 Bulk Density ≥	电极 Electrode	g/cm <sup>3</sup>	1.60	1.61	1.65	1.62	1.65	1.63	1.65	1.64	1.65	1.65	1.65
	接头 Nipple	g/cm <sup>3</sup>	1.70	1.71	1.78	1.72	1.78	1.73	1.78	1.75	1.78	1.78	1.78
热膨胀系数 (100℃-600℃) CTE ≤	电极 Electrode	X10 <sup>-6</sup> /℃	2.9	2.9		2.9		2.9		2.9		2.9	
	接头 Nipple	X10 <sup>-6</sup> /℃	2.7	2.7		2.8		2.8		2.8		2.8	
灰分 Ash Content ≤		%	0.3	0.3		0.3		0.3		0.3		0.3	

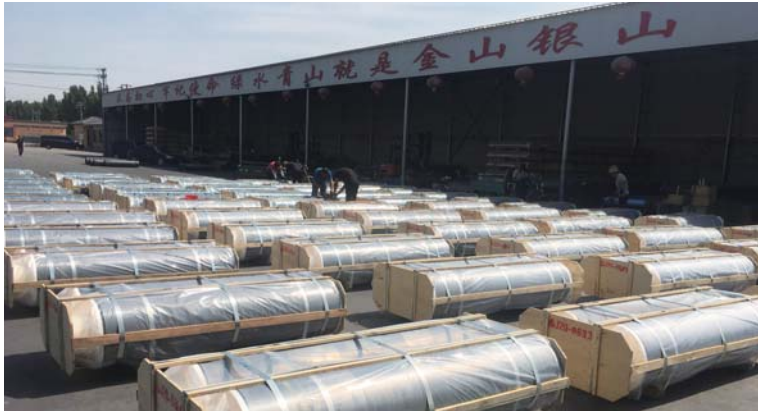
注：灰分和热膨胀系数为参考指标  
Note: Ash content and CTE are only for reference

## P 炭电极理化指标 Physico-chemical Specifications of Carbon Electrode

项目 Items	单位 Unit	公称直径 Diameter (mm)					
		S级炭电极 S-grade carbon electrode			G级炭电极 G-grade carbon electrode		
		φ500-φ700	φ500-φ700	φ500-φ700	φ500-φ700	φ500-φ700	φ500-φ700
电阻率 Specific Resistance ≤	μΩ·m	45	45	45	38	38	40
抗折强度 Bending Strength ≥	MPa	3.5-7.5	3.5-7.5	3.5-7.0	4.0-7.5	4.0-7.5	4.0-7.5
抗压强度 Compressive Strength ≥	GPa	20.0	2.0	19.0	20.0	20.0	19.0
体积密度 Bulk Density ≥	g/cm <sup>3</sup>	1.55	1.55	1.55	1.58	1.58	1.58
热膨胀系数 (100℃-600℃) CTE ≤	X10 <sup>-6</sup> /℃	3.2-4.8	3.2-4.8	3.2-4.8	3.0-4.6	3.0-4.6	3.0-4.6
灰分 Ash Content ≤	%	3.0	3.0	3.0	2.5	2.5	2.5

注：灰分为参考指标  
Note: Ash content is only for reference

# E 出口包装 Export Package



# P 生产流程 Production process



原材料  
Raw Materials



混合  
Mixing



焙烧  
Baking



再焙烧  
Re-Baking



石墨化  
Graphitization



机械加工  
Machining