建恒工业
JianHeng Industry

Recarburizer

1. Product specification

Product No.	Classification	Fixed C (%)	Ash (%)	Volatile matter (%)	Moisture (%)	S(%)	N/ppm	Size (mm)	Effective absorptivity(%)
JH-CA-CCC	Calcined coal	91.32	7.79	0.74	0.15	0.25	/	1-5	70--80%
JH-CA-CPC	Calcined petroleum coke	98.74	0.4	0.86	0.1	0.1	/	1-5	85-90%
JH-CA-GPC-M	Graphitized petroleum coke	≥99.0	≤0.5	≤1.0	≤0.5	0.2-0.4	800-2000	1-5	90-95%
JH-CA-GPC-H		≥98.5	≤0.5	≤0.5	≤0.5	≤0.05	≤300	1-5	90-95%

2. Products application and features

Name	Application	Production features
Calcined coal	Mainly used in mid and low grade gray cast iron.	Calcination temperature 1200 °C
Calcined Petroleum coke	Mainly used in gray cast iron and ductile iron.	Calcination temperature 1200 °C
High temp. GPC	The main used for ductile iron. Especially wind power and rail manufacturers with high quality requirement.	ACHSON furnace calcination temperature 3000 °C
Mid temp. GPC		ACHSON furnace calcination temp. 1700-2700℃

3. Component test standard

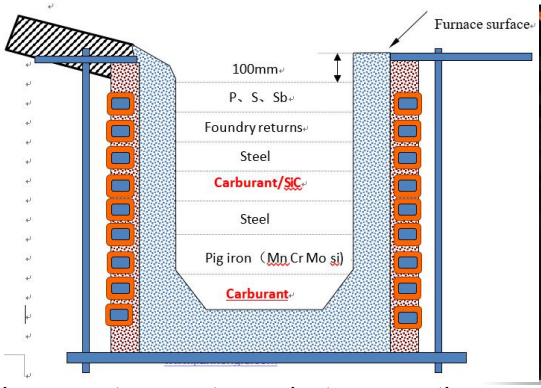
For each batch of product, we conduct component test according to standards and methods prescribed by the state. The standards are as follow:

Item	Fixed carbon and moisture	Ash	Volatile matter	Sulphur
Test standard	GB/T 3521-2008.	GB/T1429-2009	YB/T 5189-2007	specific automatic analyzer.

4. Method of smelting (For Induction furnace)

1) Particle size: In general, if the carburant particles are small, the dissolution rate is fast, the loss rate is large; The carburant particles are large, the dissolution rate is slow, the loss rate is small. The choice of particle size of carburant is related to furnace diameter and capacity. We suggest: 0-1mm size for The operating granularity of induction furnace up to 1 tons. 1-5mm suitable for induction furnace above 1 tons.

2) Adding method



- For the first smelting, add some pig iron at the bottom of furnace, then add all carburant for one-time, and add other material next.
- For continuous smelting (2T and below furnace), reserve some iron liquid in furnace then add all carburant for one-time, and add other material next.
- For continuous smelting (3T and above furnace), reserve some iron liquid in furnace then add half carburant for first time, and add half metal material, after enough time, add another half carburant and other material. The absorptivity can reach 95%.
- When smelting is achieved but there's not enough carbon and need to adjust the carbon content. First, clean the furnace slag, and then add the carburant, through increase temperature, electromagnetic stirring or artificial stirring to dissolve carbon absorption. The absorptivity can reach 90%.
- Silicon and sulfur in iron block the absorption of carbon and reduce the absorption rate of carburant. And manganese contributes to carbon absorption and increases the absorption rate of the carburant. Therefore, in the actual production process, we suggest first add manganese, then carbon, and then silicon.

3) Stirring: Before the carburant is completely dissolved, Stirring is conducive to the dissolution and diffusion of carbon, to avoid the carburant burning on the surface of iron. But stirring will increase the loss of carbon in the iron after the carburizer is dissolved, and do harm to the service life of the furnace.

5. Package and transportation