

Raw Materials of HC FeCr Production

1. Types of raw materials:

- a. Chrome ore, $\text{Cr}_2\text{O}_3 \geq 40\%$, $\text{Cr}_2\text{O}_3/\text{FeO} \geq 2.5$, $\text{S} < 0.05\%$, $\text{P} < 0.07\%$, MgO and Al_2O_3 should not too much higher, Size 10-70mm.

Silica ore: $\text{SiO}_2 > 97\%$: $\text{Al}_2\text{O}_3 < 1\%$: Stable in heat, and without Mud, size 20-80 mm.

Feeding size: large size furnace 30~100 mm; small size furnace 25~60 mm

- b. fix carbon of carbon deoxidizer $> 84\%$:ash $< 15\%$: $\text{S} < 0.6\%$, feeding size:3~20 mm.

2. Raw materials consumption(Cr 66% around):

Chrome ore 1880~2200 kg/t

Coke 410~500 kg/t

Silica 85~95 kg/t

Electrode 20~25 kg/t

Power consumption 2800~3100 kw.h/t

Power consumption of other main equipments: 400 kw/t around

3. Main operation index:

Daily production: 92 T

Unit power consumption: 3000~3400Kw.h

Qualified rate : $> 92\sim 95\%$

$\text{Cos } \phi$: 0.81

4. Power consumption

Melting process 2800~3100 kw.h/t

Cooling process 55 kw.h/t around

Smoke 250 kw.h/t

5. Gas cleaning

Gas temperature 300~800°C (central area)

~200°C (tapping area)

Gas density 3~5 g/Nm³ (central area)

1.5 g/Nm³ (tapping area)

6. Grade and content of HIGH CARBON FeCr

Grade	Content /%									
	Cr	C		Si		P		S		
		Range	I	II	I	II	I	II	I	II
		≥			≤					
FeCr67C6.0	62.0-72.0			6.0	3.0		0.03		0.04	0.06
FeCr55C600		60.0	52.0	6.0	3.0	5.0	0.04	0.06	0.04	0.06
FeCr67C9.5	62.0-72.0			9.5	3.0		0.03		0.04	0.06
FeCr55C1000		60.0	52.0	10.0	3.0	5.0	0.04	0.06	0.04	0.06