

## Raw Materials of SiMn Production

### 1. Quality of Raw Materials

1) Mn ore (mixed)  $Mn \geq 35\%$

Size: 10~80 mm; 0~10 mm, ore powder < 8%

2) Coke: fixed carbon  $\geq 82\%$ ; ash < 8%

Size: 10~20 mm

3) silica  $SiO_2 > 97\%$ ; size: 20~40 mm

### 2. Raw material consumption

Mixed Mn ore ( $Mn \geq 32\%$ ): 2550 kg/t

Coke: 600~650 kg/t

Dolomite 12-14 kg/t ( $MgO + CaO \geq 50\%$ )

Electrode paste 30~40 kg/t

### 3. Functioning standards

Power consumption: 4100 Kw·h/t (average)

Product Qualified rate > 99.5%

Mn recovery rate: 75%~80%

Si recovery rate: 40%~50%

Cos  $\phi$ : ~0.75

## SILICON MANGANESE PRODUCTION PROCEDURE FLOW

