

Certificate of Certified Reference Material

NCS HC 16006b—NCS HC 16010b

Pig Iron

Reissued in 2010

Approved by China National Analysis Center for Iron and Steel

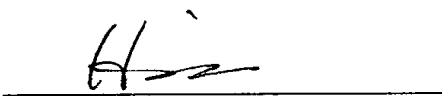
(Beijing China)

Certified Values and Standard Deviation

(%)								
No.		C	Si	Mn	P	S	Cu	Ti
NCS HC 16006b	Certified Value	2.71	1.14	0.98	0.077	0.089	0.036	0.007
	Standard Deviation	0.02	0.02	0.01	0.003	0.002	0.003	0.002
NCS HC 16007b	Certified Value	3.67	1.00	1.57	0.051	0.056	0.030	0.013
	Standard Deviation	0.03	0.02	0.02	0.003	0.003	0.003	0.001
NCS HC 16008b	Certified Value	3.45	1.44	1.84	0.046	0.018	0.015	0.019
	Standard Deviation	0.02	0.02	0.02	0.003	0.002	0.001	0.002
NCS HC 16009b	Certified Value	2.31	0.28	0.509	0.025	0.100	0.038	0.030
	Standard Deviation	0.02	0.02	0.005	0.002	0.001	0.002	0.002
NCS HC 16010b	Certified Value	3.90	0.93	0.414	0.044	0.044	0.010	0.024
	Standard Deviation	0.03	0.02	0.004	0.002	0.002	0.001	0.001

- Note:
- 1 Each certified value is the mean of analytical results of 8 independent laboratories
  - 2.The sample is chips with size 0.224 mm–0.900 mm packed in glass bottle.  
The minimum package is 100 grams.
  - 3.The sample should be stored at dry place.

Analytical Methods	
Element	Methods
C	Gas volumetric method; Infrared absorption method
Si	The oxalic acid-ferrous sulfate silicon-molybenum blue photometric method; The perchloric acid dehydration-gravimetric method
Mn	Potassium periodate photometric method; Flame atomic absorption spectrophotometry
P	The n-butyric alcohol-trichloromethane extraction photometric method; Bismuth-phosphorus-molybdenum blue photometric method; Ammonium phosphomolybdate oxidation volumetric method; Antimony-molybdenum blue photometric method; The butyl acetate phosphours-molybdenum blue extraction photometric method
S	The combustion-potassium iodate volumetric method; Infrared absorption method
Ti	Colorimetric method with chromotropic acid; ICP-AES; N-benzoyl phenylhydroxylamine- trichloromethane extraction method; The diantipyrylmethane-stannous chloride trichloromethane extraction photometric method; The diantipyrylmethane photometric method after separation with 4-methyl-2-pentanone
Cu	The neocuprone trichloromethane extraction photometric method; Photometric method with bis-cyclohexanone oxalylbihydrazone; Flame atomic absorption spectrometry



**Professor Wang Haizhou, Chief**  
**China National Analysis Center for Iron and Steel**