



Certificate of Certified Reference Material

NCS HC 25657

Silicon Manganese Alloy

Issued in 2010

Approved by China National Analysis Center for Iron and Steel

(Beijing China)

This Certified Reference Materials is prepared in accordance with the ISO guides 30-35. The intended use for this CRM is for the quality control in silicon manganese alloy analysis, the evaluating methods of analysis and the calibration of analytical instruments.

### Certified Values and Extended uncertainty (%)

No.		C	Si	Mn	Ti	P	S
NCS HC	Certified Values	0.58	25.03	67.96	0.18	0.065	0.011
25657	Extended uncertainty	0.01	0.06	0.11	0.01	0.002	0.001

Note:

1. 8 independent laboratories take part in the analysis work.
2. The sample is powder with size less 0.125mm packed in glass bottle.  
The minimum package is 50 grams.  
The minimum weight for analysis is Ti: 0.1g, others: 0.2g.
3. The valid time of the sample is 10 years, although we reserve the right to make change as issue revisions.

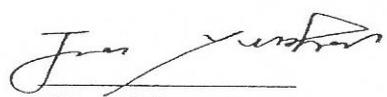
### Analytical Methods

Element	Analytical method
C	The gasometric method; Coulombic method; Infrared absorption method
Si	Gravimetric method after dehydration with perchloric acid
Mn	Ammonium nitrate oxidation-ferrous titrimetric method; The perchloric acid oxidation-ferrous titrimetric method
Ti	Diantipyryl methane photometric method; ICP-AES method
P	ICP-AES method; Molybdenum blue photometric method
S	Infrared absorption method, Combustion-titrimetric method

Statement:

This material is used only in labs and for analysis work, producer will be not responsible for any problem caused by misuse or not properly store.

Please check carefully the package, quantity and type of the material after receiving it. Related compensation is only limited in the certified materials, any other losses will be not included.



**Jia Yunhai**  
**Laboratory Director**