



Certificate of Certified Reference Material

NCS FC 28138

Coal

Issued in 2014

Approved by China National Analysis Center for Iron and Steel

( Beijing China )

## Certified Values and Uncertainty

(Certified on Jan. 2014)

No.		Total Sulfur (%)	Ash (%)	Volatile matter(%)	Calorific Value (MJ/kg)	Carbon (%)	Hydrogen (%)	Nitrogen (%)	True Specific Gravity (20 °C)	Coal Type
NCS FC 28138	Certified Value	1.40	44.13	11.36	18.40	47.12	2.53	0.68	1.79	anthracite
	Uncertainty	0.05	0.25	0.22	0.18	0.36	0.10	0.06	0.03	

Note:

- 1.All values are expressed on dry bases. Calorific value is high value of dry base.
- 2.Each certified value is the mean of analytical results of 8 independent laboratories.  
Uncertainty( $\Delta x$ ) is calculated by  $\Delta x = t_{\alpha(m-1)} S_T$ . In above formula,  $t_{\alpha(m-1)}$  is confidence coefficient of t-distribution,  $\alpha$  is confidence level and  $S_T$  is standard deviation.  
Uncertainty is expanded uncertainty at 95% confidence level.
- 3.The sample is powder with size <0.2mm packed in glass bottle.  
The minimum package is 50 grams. The minimum weight for analysis is: S 30 mg, Ash and Volatile matter 0.5g, Calorific value 0.5g, C,H,N 50mg.
- 4.The sample should be stored in cold and dry place.
- 5.The certified values are redetermined once every year in December and customers will be informed if there is any change in certified values.

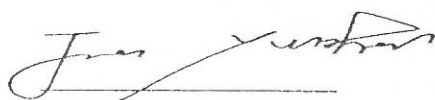
## Analytical Methods

Item	Analytical Method
Total Sulfur	GB/T214—2007 Method of Determination of Total Sulfur in Coal
Ash and Volatile	GB212—2008 Analytical Method of Coal for Industry
Calorific Value	GB/T213—2008 Method of Determination of Calorific Value of Coal
Carbon , Hydrogen , Nitrogen	GB476—2008 Method of Determination of Carbon and Hydrogen in Coal, GB/T19227-2008 Method of Determination of Nitrogen in Coal.
True Specific Gravity	GB/T217—2008 Method of Determination of True Specific Gravity of Coal

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**