

Certificate of Certified Reference Material

NCS HS 92745

Cast Iron

Issued in 2011

Approved by China National Analysis Center for Iron and Steel

(Beijing China)

Certified Value and Standard deviation

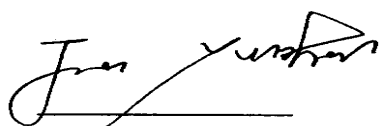
No.		C	Si	Mn	P	S	Cr	Ni
NCS HS 92745	Certified Value	3.69	1.50	0.49	0.063	0.049	0.47	0.23
	Standard deviation	0.02	0.02	0.01	0.002	0.002	0.01	0.01
		Mo	V	Cu	Sb			
NCS HS 92745	Certified Value	0.22	0.11	0.34	0.12			
	Standard deviation	0.01	0.01	0.01	0.01			

Note:

1. Each certified value is the mean of analytical results of 6 independent laboratories.
2. The sample is cylinder bar with size $\Phi 30 \times 30$ mm and packed in box.
3. The sample should be stored in dry place. The valid time for the sample is 15 years.

Analytical Methods

Element	Analytical methods
C	Combustion-gas volumetric method; Combustion-infrared absorption method
Si	Gravimetric method after dehydration with perchloric acid; Silicon-molybdate photometric method
Mn	Periodate oxidation photometric method; AAS; ICP-AES
P	Butyl acetate extraction photometric method; N-butyl alcohol-chloroform extraction photometric method; ICP-AES
S	Combustion-titrimetric method; Combustion-infrared absorption method
Cr	Sodium carbonate separation diphenylcarbazide Photometric method; ICP-AES
Mo	Thiocyanate photometric method; ICP-AES Butyl acetate-thiocyanate extraction photometric method
Ni	Dimethylglyoxime photometric method; ICP-AES; AAS
V	Chromotropic acid photometric method; ICP-AES; Potassium permanganate oxidation titrimetric method;
Cu	Sodium thiosulfate separation iodimetric method; Cupferron separation iodimetric method; ICP-AES
Sb	Photometric method with malachite green with benzene extraction; ICP-AES, AAS



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