

Certificate of Certified Reference Material

NCS AH 11399

(30CrMo)

Alloy Structure Steel

Issued in 2015

Approved by China National Analysis Center for Iron and Steel

(Beijing China)

Certified Values and Extended uncertainty (k=2)

(%)

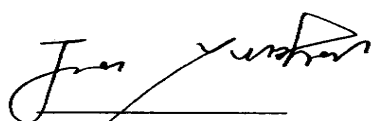
No.		C	Si	Mn	P	S	Cr	Ni
NCS AH	Certified Value	0.279	0.253	0.558	0.0088	0.0019	0.938	0.033
11399	Extended uncertainty	0.005	0.002	0.005	0.0005	0.0002	0.007	0.002
		Cu	Mo	V	Co	Alt	As	Sn
NCS AH	Certified Value	0.058	0.166	0.0053	0.0082	0.029	0.0058	0.0040
11399	Extended uncertainty	0.002	0.002	0.0004	0.0004	0.002	0.0003	0.0002

Note:

1. Each certified value is the mean of 6 analytical results of independent labs.
2. The sample is cylinder bar. The size $\Phi 38 \times 40$ mm.
3. The sample should be stored in dry place.

Analytical Methods

- C: Combustion- infrared absorption method
Combustion- gasometric method
- Si: The perchloric acid dehydration-gravimetric method
Silicon-molybdenum blue photometric method
- Mn: Potassium periodate oxidation photometric method; ICP-AES
- P: Bismuth-phosphorus-molybdenum blue photometric method; ICP-AES
The butyl acetate extraction phosphorus-molybdenum blue photometric method
- S: The aluminum oxide chromatographic separation-barium sulfate gravimetric method
Combustion-infrared absorption method
- Cr: Ammonium persulfate oxidation-ammonium ferrous sulfate titrimetric method
ICP-AES
- Ni: Dimethylglyoxime-extraction photometric method; ICP-AES, AAS
- Cu: Photometric method with bis-cyclohexanone oxalylbihydrazone
The neocuprone-trichloromethane extraction photometric method; AAS
- V: N-benzoyl phenylhydroxylamine extraction photometric method; ICP-AES
- Mo: Thiocyanate photometric method, ICP-AES.
- Co: 5-Cl-PADAB photometric method, ICP-AES, ICP-MS
- As: ICP-AES, ICP-MS, HG-AFS
- Al: The chrome azuol S photometric method; ICP-AES
- Sn: Separation by iodide extraction-phenylfluorone photometric method
ICP-AES, ICP-MS



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