



CERTIFICATE of Compliance

U.S. ALLOY CO.
dba Washington Alloy
7010-G Reames Rd.
Charlotte, NC 28216
www.weldingwire.com

Quality Management System
in accordance with
ISO 9001:2000
Cert # 05-R0925

TRADE NAME:
Manganese Nickel Aluminum Bronze
Specification: AWS A 5.7 : ASME SFA 5.7
Classification: ERCuMnNiAl



Chemical Composition

	AWS Requirements		AWS Requirements
Copper (Cu) ^(Ag)	Remainder	Nickel (Ni) ^(Co)	1.50-3.00
Zinc (Zn)	0.15 max.	Phosphorus (P)	
Manganese (Mn)	11.00-14.00	Aluminum (Al)	7.00-8.50
Iron (Fe)	2.00-4.00	Lead (Pb)	0.02 max.
Silicon (Si)	0.10 max.	Total other elements	0.50 max.
^(Ag) May includes Silver		^(Co) May includes Cobalt	

Mechanical Properties

AWS Requirements min.

Tensile Strength	75,000 psi
Brinell Hardness (HBW)	160-200
Charpy V-notch Impact Average	Not required
Elongation in 2"	
Ferrite Content	Not required

The above table is for gas tungsten basic information only

This certification is provided by Washington Alloy Co. with the expressed understanding that if the product supplied fails to conform the stated specifications, there shall be no personal liability of any kind on the undersigned and the obligation and liability of Washington Alloy Co., with respect to such non-conformance or specification failure, shall be limited to a) an obligation to furnish the purchaser, at no additional charge, material that meets the specifications and conformances or b) to refund to the purchaser the full amount of money paid to Washington Alloy Co. for the return of the product in full. In no event shall Washington Alloy Co. be liable for consequential damage.

This certifies that the product supplied will meet the requirements of the noted classification and data above. Products supplied in accordance to the Quality Management System of Washington Alloy Company.


Certification Administrator

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Warehouse Distribution Center – Dayton, Ohio

Head Office – Puyallup, Washington

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