



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: USA 70S-6
Specification: AWS A 5.18 : ASME SFA 5.18
Classification: ER70S-6

Chemical Composition % for Weld Wire

	AWS Requirements	Typical ¹
Carbon (C)	0.06-0.15	0.10
Manganese (Mn)	1.40-1.85	1.70
Silicon (Si)	0.80-1.15	1.00
Phosphorus (P)	0.025 max.	0.010
Sulfur (S)	0.035 max.	0.015
Nickel (Ni)	0.15 max.	
Molybdenum (Mo)	0.15 max.	
Copper (Cu)	0.50 max.	
Chromium (Cr)	0.15 max.	
Vanadium (V)	0.03 max.	

Mechanical Properties

	Minimum AWS Requirements	Typical ¹
Tensile Strength	70,000 psi	90,000 psi
Yield Strength	58,000 psi	73,000 psi
Elongation in 2"	22 %	25%
Charpy V-notch Impact Average	20 ft · lbs at -20°F	28 ft · lbs at -20°F

This certification is provided by Washington Alloy Co., a U.S. Alloy Co., with the expressed understanding that if the product supplied fails to conform to 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

- 1) an obligation to furnish the purchaser, at no additional charge, material that meets the specifications and conformances or
- 2) 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 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.

¹Typical Results based on 100% CO₂


Certification Administrator

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Warehouse Distribution Center – Dayton, Ohio

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