



# CERTIFICATE of Compliance

U.S. ALLOY CO.  
dba Washington Alloy  
7010-G Reames Rd.  
Charlotte, NC 28216  
[www.weldingwire.com](http://www.weldingwire.com)

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

**TRADE NAME: USA 70S-7**  
Specification: AWS A 5.18 : ASME SFA 5.18  
Classification: ER70S-7



## Chemical Composition % for Weld Wire

### AWS Requirements

|                        |                   |  |
|------------------------|-------------------|--|
| <b>Carbon (C)</b>      | <b>0.07-0.15</b>  |  |
| <b>Manganese (Mn)</b>  | <b>1.50-2.00*</b> |  |
| <b>Silicon (Si)</b>    | <b>0.50-0.80</b>  |  |
| <b>Phosphorus (P)</b>  | <b>0.025 max.</b> |  |
| <b>Sulfur (S)</b>      | <b>0.035 max.</b> |  |
| <b>Nickel (Ni)</b>     | <b>0.15 max.</b>  |  |
| <b>Molybdenum (Mo)</b> | <b>0.15 max.</b>  |  |
| <b>Copper (Cu)</b>     | <b>0.50 max.</b>  |  |
| <b>Chromium (Cr)</b>   | <b>0.15 max.</b>  |  |
| <b>Vanadium (V)</b>    | <b>0.03 max.</b>  |  |

\*Mn may exceed 2.0% - with each .05% Mn increase C max must be reduced .01%

## Mechanical Properties

### Minimum AWS Requirements

|                                      |                             |  |
|--------------------------------------|-----------------------------|--|
| <b>Tensile Strength</b>              | <b>70,000 psi</b>           |  |
| <b>Yield Strength</b>                | <b>58,000 psi</b>           |  |
| <b>Elongation in 2"</b>              | <b>22 %</b>                 |  |
| <b>Charpy V-notch Impact Average</b> | <b>20 ft · lbs at -20°F</b> |  |

*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

**EAST COAST**  
7010-G Reames Rd  
Charlotte, NC 28216  
Tel (888) 522-8296  
Fax (704)598-6673

**GULF COAST**  
4755 Alpine Drive #100A  
Stafford, TX 77477  
Tel (877) 711-9274  
Fax (281)313-6332

**WEST COAST**  
8535 Utica Ave  
Rancho Cucamonga, CA 91730  
Tel(800)830-9033  
Fax (909)291-4586



Warehouse Distribution Center – Dayton, Ohio

Head Office – Puyallup, Washington

Washington Alloy Company believes that all information and data given is correct. Use this information to assist in making your own evaluations or decisions and this information should not be mistaken as an expressed or implied warranty. U.S. ALLOY CO. assumes no liability for results or damages incurred from the use of any information contained herein, in whole or in part.