



# TENSILEWELD ELECTRODE

U.S. ALLOY CO.  
dba Washington Alloy  
825 Groves Street  
Lowell, NC 28098  
[www.weldingwire.com](http://www.weldingwire.com)

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



## ALLOY DESCRIPTION AND APPLICATION;

Tensileweld is the ultimate AC-DC electrode to use where high strength and porosity-free welds are required. Weld deposits are impact, abrasion, heat and corrosion resistant. Tensileweld is especially formulated to weld dissimilar steels; high carbon, tool and die steels; stainless steels; spring and coil steels; pressure vessels and aircraft steels. It is the perfect electrode to use where the alloy content of the base metal is unknown. Typical applications would include the underlayment of hard facing alloys in mining applications, rebuilding shafts and agitator blades in turbines, framed, cast steel parts and gears. Clean the work area. Thick sections should be beveled. A preheat of 400°F is recommended for carbon and cast steels. AC or DC reverse polarity is used. Maintain a short arc, slightly inclined in the direction of movement and use stringer beads. Peening is recommended.

## TYPICAL WELDING PROCEDURES; RECOMMENDED AMPERAGE (AC OR DC+)

Diameter	Amps (Flat)	Volts	Diameter	Amps (Flat)	Volts
3/32"	65-100	20-27	5/32"	95-160	24-29
1/8"	75-135	21-28	3/16"	145-230	25-30

Voltage is estimated and will vary.

Procedures are based on flat position and may vary with change in position, base metals, filler metals, equipment and other changes.

## TYPICAL CHEMISTRY AND PROPERTIES;

Carbon	0.25	Manganese	1.0-3.5
Silicon	3.50	Phosphorus	0.03
Sulphur	0.03	Molybdenum	2.50
Chromium	25.0-33.0	others	1.5 each
Copper	1.25	Nickel	8.0-18.5
Elongation	27-30%		
Yield Strength (psi)	87-95,000		
Tensile Strength (psi)	95-122,000		

Iron balance and all single values are maximum percentages.

**AVAILABLE SIZES:** TU TENS L 3/32, 1/8, 5/32, 3/16

Other sizes available – please inquire.



**WA. ALLOY CO.**

## SPECIFICATIONS; Internal

EAST COAST  
825 Groves St  
Lowell, NC 28098  
Tel (980) 550-2002  
Fax (909) 291-4586

GULF COAST  
4855 Alpine Drive #100  
Stafford, TX 77477  
Tel (888) 522-8296  
Fax (909) 291-4586

WEST COAST  
8885 White Oak, Ste104  
Rancho Cucamonga, CA 91730  
Tel (888) 522-8296  
Fax (909) 291-4586

NORTHEAST COAST  
101 Wales Ave  
Avon, MA 02322  
Tel (888) 522-8296  
Fax (909) 291-4586

Warehouse Distribution Center – Ridgefield, WA

Head Office – Lowell, NC

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.